Self Diagnosis Supported model

SERVICE MANUAL

P700

P700

US Model

Canadian Model

Chassis No. SCC-L29P-A

D99 CHASSIS

SPECIFICATIONS

Picture tube	0.24-0.25 mm aperture grill pitch 17 inches measured diagonally 90-degree deflection
Video image area	(16" maximum viewing image) Approx. 327 X 243 mm (w/h) ($12^{7/8}$ x $9^{5/8}$ inches)
Resolution	Horizontal: Max. 1600 dots Vertical: Max. 1200 lines
Standard image area	Approx. 312 x 234 mm (w/h) ($12^{1/4}$ x $9^{1/4}$ inches)
Input signal	
Video	Analog RGB (75 ohms typical) 0.7 Vp-p, ±5%, Positive
Sync	Separate HD/VD, TTL Polarity Free External Composite, TTL Polarity Free (2K ohms impedance) Sync on Green
Power Consumption	
Maximum	130 W
Nominal	95 W
Deflection frequency	Horizontal: 30 to 92 KHz Vertical: 48 to 120 Hz
AC input voltage / current	100 to 120 V, 50/60 Hz, 1.7A 220 to 240V, 50/60Hz, 0.9A
Dimensions	404 x 428 x 424 mm (w/h/d) ($15^{9/10}$ x $16^{7/8}$ x $16^{7/10}$ inches)
Mass	Approx. 19.2 kg (42 lb 11 oz.)

Design and specifications are subject to change without notice.

TRINITRON COLOR MONITOR

COMPAQ

POWER MANAGEMENT

The power saving mode complies with the VESA Display Power Management Signaling standard. Each state of power management shall be activated by the host computer terminating the appropriate sync signals. Blanking the video must precede termination of the sync signals. The elapsed time counter shall also be controlled by the host computer. Reactivation of the monitor shall be accomplished from the host computer by re-establishing the normal sync signal.

	Power consumption mode	Screen (video)	Horizontal sync signal	Vertical sync signal	Power consumption	Recovery time	⏻ indicator
1	Normal operation	active	yes	yes	≤ 130 W	--	Green
2	Standby (1st mode)	blank	no	yes	≤ 15 W	Approx. 3 sec.	Green and Orange Alternate
3	Suspend (2nd mode)	blank	yes	no	≤ 15 W	Approx. 3 sec.	Green and Orange Alternate
4	Active-off (3rd mode)	blank	no	no	≤ 3 W	Approx. 10 sec.	Orange
5	Power-off	--	--	--	0 W	--	Off

SELF DIAGNOSIS FUNCTION

When a failure occurs, the STANDBY/TIMER lamp will flash a set number of times to indicate the possible cause of the problem. If there is more than one error, the lamp will identify the first of the problem areas.

	Status	Area of Failure	LED Indication
1	Failure 1	HV or +B	Amber (0.5 second)/Off (0.5 second)
2	Failure 2	H Stop or V Stop	Amber (1.5 second)/Off (0.5 second)
3	Failure 3	ABL	Amber (0.5 second)/Off (1.5 second)
4	Aging/Self Test		Amber (0.5 second)/Off (0.5 second)/ Green (0.5 second)/Off (0.5 second)

TIMING SPECIFICATION

TIMING SPECIFICATIONS									
MODE	1	2	3	4	Primary Mode 5	6	7	8	9
Resolution (H x V)	640 X 480	640 X 480	720 X 400	800 X 600	1024 X 768	1280 X 1024	1280 X 1024	1600 X 1200	1280 X 1024
Dot Clock (MHz)	25.175	36.000	28.321	56.250	94.500	108.000	157.500	189.000	135.000
HORIZONTAL									
Hor. Freq. (kHz)	31.469	43.269	31.468	53.674	68.677	63.981	91.146	87.500	79.976
H-Total	31.778	23.111	31.779	18.631	14.561	15.630	10.971	11.429	12.504
H-Blanking	6.356	5.333	6.356	4.409	3.725	3.778	2.844	2.963	3.022
H-Front Porch	0.636	1.556	0.636	0.569	0.508	0.444	0.406	0.339	0.119
H-Sync.	3.813	1.556	3.813	1.138	1.016	1.037	1.016	1.016	1.067
H-Back Porch	1.907	2.222	1.907	2.702	2.201	2.296	1.422	1.608	1.837
H-Active (µsec)	25.422	17.778	25.423	14.222	10.836	11.852	8.127	8.466	9.481
VERTICAL									
Ver. Freq. (Hz)	59.940	85.008	70.084	85.061	84.997	60.020	85.024	70.000	75.025
V-Total	525	509	449	631	808	1066	1072	1250	1066
V-Blanking	45	29	49	31	40	42	48	50	42
V-Front Porch	10	1	12	1	1	1	1	1	1
V-Sync.	2	3	2	3	3	3	3	3	3
V-Back Porch	33	25	35	27	36	38	44	46	38
V-Active (lines)	480	480	400	600	768	1024	1024	1200	1024
SYNC.									
Int (G)	NO	NO	NO	NO	NO	NO	NO	NO	NO
Ext (H/V)/Polarity	YES -/-	YES -/-	YES -/+	YES +/+	YES +/+	YES +/+	YES +/+	YES +/+	YES +/+
Ext (C/S)/Polarity	NO	NO	NO	NO	NO	NO	NO	NO	NO
Int/Non Int	NON INT	NON INT	NON INT	NON INT	NON INT	NON INT	NON INT	NON INT	NON INT

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SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:

1. Check the area of your repair for unsoldered or poorly soldered connections. Check the entire board surface for solder splashes and bridges.
2. Check the interboard wiring to ensure that no wires are “pinched” or contact high-wattage resistors.
3. Check that all control knobs, shields, covers, ground straps, and mounting hardware have been replaced. Be absolutely certain that you have replaced all the insulators.
4. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
5. Look for parts which, though functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
6. Check the line cords for cracks and abrasion. Recommend the replacement of any such line cord to the customer.
7. Check the B+ and HV to see if they are specified values. Make sure your instruments are accurate; be suspicious of your HV meter if sets always have low HV.
8. Check the antenna terminals, metal trim, “metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

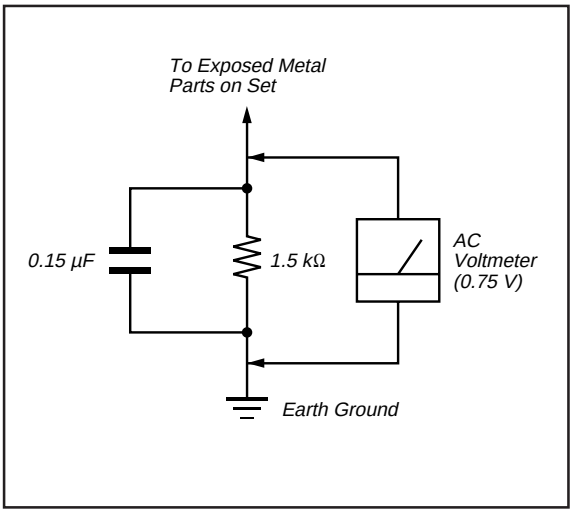


Figure A

Leakage Test

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microampere). Leakage current can be measured by any one of three methods:

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instructions.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low voltage scale. The Simpson's 250 and Sanwa SH-63Trd are examples of passive VOMs that are suitable. Nearly all battery operated digital multimeters that have a 2V AC range are suitable. (See Figure A)

WARNING!!

NEVER TURN ON THE POWER IN A CONDITION IN WHICH THE DEGAUSS COIL HAS BEEN REMOVED.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL FOR SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY. CIRCUIT ADJUSTMENTS THAT ARE CRITICAL FOR SAFE OPERATION ARE IDENTIFIED IN THIS MANUAL. FOLLOW THESE PROCEDURES WHENEVER CRITICAL COMPONENTS ARE REPLACED OR IMPROPER OPERATION IS SUSPECTED.

AVERTISSEMENT!!

NE JAMAIS METTRE SOUS TENSION QUAND LA BOBINE DE DEMAGNETISATION EST ENLEVEE.

ATTENTION AUX COMPOSANTS RELATIFS A LA SECURITE!!

LES COMPOSANTS IDENTIFIES PAR UNE TRAME ET PAR UNE MARQUE ⚠ SUR LES SCHEMAS DE PRINCIPE, LES VUES EXPLOSEES ET LES LISTES DE PIECES SONT D'UNE IMPORTANCE CRITIQUE POUR LA SECURITE DU FONCTIONNEMENT. NE LES REMPLACER QUE PAR DES COMPOSANTS SONY DONT LE NUMERO DE PIECE EST INDIQUE DANS LE PRESENT MANUEL OU DANS DES SUPPLEMENTS PUBLIES PAR SONY. LES REGLAGES DE CIRCUIT DONT L'IMPORTANCE EST CRITIQUE POUR LA SECURITE DU FONCTIONNEMENT SONT IDENTIFIES DANS LE PRESENT MANUEL. SUIVRE CES PROCEDURES LORS DE CHAQUE REMPLACEMENT DE COMPOSANTS CRITIQUES, OU LORSQU'UN MAUVAIS FONTIONNEMENT SUSPECTE.

SECTION 1
GENERAL

The instructions given are partial abstracts from the Operating Instruction Manual. The page numbers shown reflect those of the Operating Instruction Manual

Precautions

Installation

Do not install the monitor in the following places:
- on surfaces (rugs, blankets, etc.) or near materials (curtains, draperies) that may block the ventilation holes
- near heat sources such as radiators or air ducts, or in a place subject to direct sunlight
- in a place subject to severe temperature changes
- in a place subject to mechanical vibration or shock
- on an unstable surface
- near equipment which generates magnetism, such as a transformer or high voltage power lines
- near or on an electrically charged metal surface

Maintenance

- Clean the screen with a soft cloth. If you use a glass cleaning liquid, do not use any type of cleaner containing an anti-static solution or similar additive as this may scratch the screen's coating.
- Do not rub, touch, or tap the surface of the screen with sharp or abrasive items such as a ball point pen or screwdriver. This type of contact may result in a scratched picture tube.
- Clean the cabinet, panel and controls with a soft cloth lightly moistened with a mild detergent solution. Do not use any type of abrasive pad, scouring powder or solvent, such as alcohol or benzene.

Transportation

When you transport this monitor for repair or shipment, use the original carton and packing materials.

Warning on Power Connection

- Use the supplied power cord. If you use a different power cord, be sure that it is compatible with your local power supply.
  For the customers in the US
  If you do not use the appropriate cord, this monitor will not conform to mandatory FCC Standards.

Example of plug types

for 100 to 120 V AC for 200 to 240 V AC

- Before disconnecting the power cord, wait at least 30 seconds after turning off the power to allow the static electricity on the screen's surface to discharge.
- After the power is turned on, the screen is demagnetized (degaussed) for about 3 seconds. This generates a strong magnetic field around the screen, which may affect data stored on magnetic tapes and disks placed near the monitor. Be sure to keep magnetic recording equipment, tapes and disks away from the monitor.

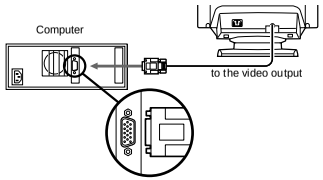
The equipment should be installed near an easily accessible outlet.

Getting Started

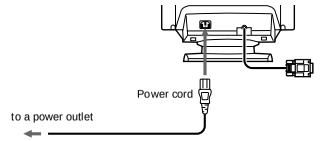
Setup

Connect the monitor to your computer system.
This monitor will sync to platforms running at horizontal frequencies between 30 and 85 kHz.

Step 1 Make sure the computer system is switched off and attach the video signal cable to the video output of the computer.



Step 2 Make sure the computer is switched off and attach the power cord to the monitor. Then, attach the other end of the power cord to a power outlet.

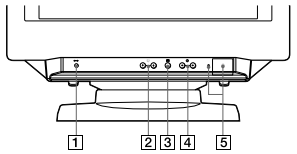


Step 3 Switch on the monitor and computer.

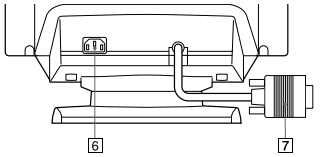
Step 4 Adjust the user controls according to your personal preference.
Installation is complete.

Parts and Controls

Front



Rear



1 →•← **(RESET) button (pages 6, 9)**
This button resets the adjustments to the factory settings.

2 ☼ **(BRIGHTNESS) (↓/↑) buttons (page 5)**
These buttons adjust the picture brightness and function as the (↓/↑) buttons when adjusting other items.

3 ▭ **(MENU) button (page 6)**
This button displays the MENU OSD.

4 ◑ **(CONTRAST) (←/→) buttons (page 5)**
These buttons adjust the contrast and function as the (←/→) buttons when adjusting other items.

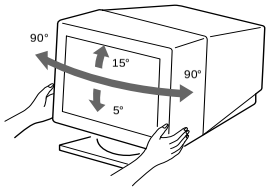
5 ⏻ **(POWER) switch and indicator**
This button turns the monitor on and off.
The indicator lights up green when the monitor is on, and lights up green and orange when the monitor is in Power Saving mode.

6 **AC IN connector**
This connector provides AC power to the monitor.

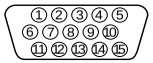
7 **Video input connector (HD15) (page 5)**
This connector inputs RGB video signals and SYNC signals.

Use of the Tilt/Swivel

This monitor can be adjusted within the angles shown below. To turn the monitor vertically or horizontally, hold it at the bottom with both hands.



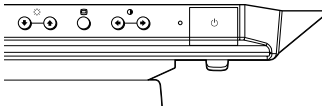
Video Connector



Pin No.	Signal	Pin No.	Signal
1	Red video	8	Blue return
2	Green video	9	Not used (no pin)
3	Blue video	10	Ground
4	Ground	11	Ground
5	CPU host ground	12	SDA (serial data)
6	Red ground	13	Horizontal Sync
7	Green return	14	Vertical Sync
		15	SCL (serial clock)

Adjusting the Picture Brightness and Contrast

1 Press the ☼ (BRIGHTNESS) ⬍/⬍ or ◑ (CONTRAST) ⬌/⬌ buttons.
The BRIGHTNESS/CONTRAST OSD appears.



2 To adjust the brightness.
Press the ☼ (BRIGHTNESS) ⬍/⬍ buttons.

To adjust the contrast.
Press the ◑ (CONTRAST) ⬌/⬌ buttons.

US

The OSD (On-screen Display) System

Introducing the OSD System

You can adjust most of the monitor's settings using the OSDs (On-screen Display). All of the OSDs in this illustration are described on the following pages in order. You can access any of these OSDs from the MENU OSD. To adjust monitor settings using the OSDs, follow the steps below:

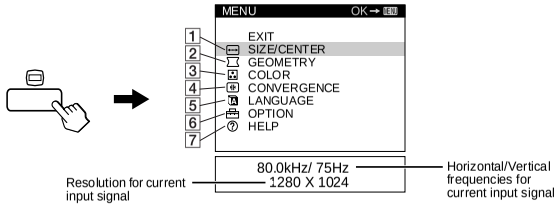
Basic controls:

- Use the ▭ (MENU) button to display the MENU OSD and to select menu items.
- Use the ☼ (BRIGHTNESS) ⬍/⬍ buttons to highlight menu items and to adjust settings.

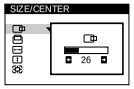
To adjust the monitor settings:

1 Press the MENU button to display the MENU OSD.
2 Highlight the desired OSD using the BRIGHTNESS buttons and press the MENU button again.
3 If necessary, use the BRIGHTNESS buttons to select a specific item.
4 Adjust the monitor setting using the BRIGHTNESS and CONTRAST buttons.
- To reset the current item to its original setting, press the →•← (RESET) button while the item's adjustment OSD is displayed.

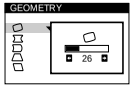
5 When you finish adjusting the setting, press the MENU button to return to the MENU OSD.
Press the MENU button twice to return to normal viewing.
- Resetting: If you press the RESET button while an OSD is displayed, only the current adjustment item is reset. For additional information on using the reset function, see the "Resetting the Adjustments" section on page 9.
- Each of the adjustment's OSD automatically disappears after 30 seconds.



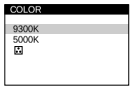
1 SIZE/CENTER



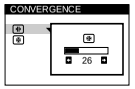
2 GEOMETRY



3 COLOR

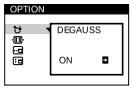


4 CONVERGENCE

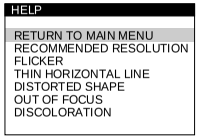


5 LANGUAGE

6 OPTION



7 HELP



Adjusting the Settings

1 Adjusting the size and centering of the picture (SIZE/CENTER)

This setting is stored in memory for the current input signal.

1 Press the MENU button.
The main MENU appears on the screen.

2 Press the ☼ ↓/↑ buttons to highlight ↔ SIZE/CENTER and press the MENU button again.
The SIZE/CENTER menu appears on the screen.

3 Press the ☼ ↓/↑ buttons to select the desired adjustment item. Then press the ◑ ←/→ buttons to adjust the setting.
The OSD automatically disappears after about 30 seconds. To close the OSD, press the MENU button again.

Select	To
HORIZONTAL CENTERING	shift the picture to the left or right
VERTICAL CENTERING	shift the picture up or down
HORIZONTAL SIZING	enlarge or reduce the picture width
VERTICAL SIZING	enlarge or reduce the picture height
ZOOM	enlarge or reduce the picture width and height proportionally

Note
Adjustment stops when either the horizontal or vertical size reaches its maximum or minimum value.

2 Adjusting the shape of the picture (GEOMETRY)

The GEOMETRY settings allow you to adjust the rotation and shape of the picture.
The rotation setting is stored in memory for all input signals. All other settings are stored in memory for the current input signal.

1 Press the MENU button.
The main MENU appears on the screen.

2 Press the ☼ ↓/↑ buttons to highlight GEOMETRY and press the MENU button again.
The GEOMETRY menu appears on the screen.

3 First press the ☼ ↓/↑ buttons to select the desired adjustment item. Then press the ◑ ←/→ buttons to adjust the setting.
The OSD automatically disappears after about 30 seconds. To close the OSD, press the MENU button again.

Select	To
ROTATION	rotate the picture
PINCUSHION	expand or contract the picture sides
PIN BALANCE	shift the picture sides to the left or right
KEYSTONE	adjust the picture width at the top of the screen
KEY BALANCE	shift the picture to the left or right at the top of the screen

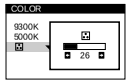
3 Adjusting the color of the picture (COLOR)

The COLOR settings allow you to adjust the picture's color temperature by changing the color level of the white color field. Colors appear reddish if the temperature is low, and bluish if the temperature is high. This adjustment is useful for matching the monitor's colors to a printed picture's colors.
This setting is stored in memory for all input signals.

1 Press the MENU button.
The main MENU appears on the screen.

2 Press the ☼ ↓/↑ buttons to highlight COLOR and press the MENU button again.
The COLOR menu appears on the screen.

3 Press the ☼ ↓/↑ buttons to select a color temperature.
The preset color temperatures are 9300K and 5000K. Since the default setting is 9300K, the whites change from a bluish hue to a reddish hue as the temperature is lowered to 5000K.
You can also fine tune the color temperature by selecting in step 2 above, and using the ◑ ←/→ buttons to adjust the color temperature manually.



This OSD allows you to adjust the color temperature between 9300K and 5000K.
Press the ◑ ←/→ buttons to adjust the color temperature.
The OSD automatically disappears after about 30 seconds. To close the OSD, press the MENU button again.

US

4 Adjusting the quality of the picture (CONVERGENCE)

The CONVERGENCE settings allow you to adjust the quality of the picture by eliminating red or blue shadows around letters, characters and lines.
Both settings are stored in memory for all input signals.

1 Press the MENU button.
The main MENU appears on the screen.

2 Press the ☼ ↓/↑ buttons to highlight CONVERGENCE and press the MENU button again.
The CONVERGENCE menu appears on the screen.

3 Press the ◑ ←/→ buttons to adjust the horizontal convergence, or the ☼ ↓/↑ buttons to adjust the vertical convergence.
The OSD automatically disappears after about 30 seconds. To close the OSD, press the MENU button again.

5 Changing the OSD language (LANGUAGE)

This setting is stored in memory for the current input signal.

1 Press the MENU button.
The main MENU appears on the screen.

2 Press the ☼ ↓/↑ buttons to highlight LANGUAGE and press the MENU button again.
The LANGUAGE menu appears on the screen.

3 Press the ☼ ↓/↑ buttons to select the language you prefer.
The OSD automatically disappears after about 30 seconds. To close the OSD, press the MENU button again.

6 Additional settings (OPTION)

You can manually degauss (demagnetize) the screen, cancel the moire, adjust the OSD horizontal position, adjust the OSD vertical position and lock the controls using the OPTION OSD.

1 Press the MENU button.
The main MENU appears on the screen.

2 Press the ☼ ↓/↑ buttons to highlight OPTION and press the MENU button again.
The OPTION menu appears on the screen.

3 Press the ☼ ↓/↑ buttons to highlight the desired adjustment item.
Adjust the selected item according to the following instructions.
The OSD automatically disappears after about 30 seconds. To close the OSD, press the MENU button again.

Degaussing the monitor

The monitor is automatically degaussed (demagnetized) when the power is turned on.

To manually degauss the monitor, first press the ☼ ↓/↑ buttons to highlight (MANUAL DEGAUSS). Then press only the right ◑ → button.
The monitor is degaussed for about three seconds. If a second degauss cycle is needed, allow a minimum interval of 20 minutes for the best result.

Adjusting the amount of the moire cancellation

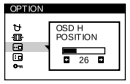
To adjust the amount of moire cancellation, first press the ☼ ↓/↑ buttons to highlight (MOIRE CANCEL). Then press the ◑ ←/→ buttons to adjust the amount of moire cancellation until the moire effect is at a minimum.

* Moire is a type of natural interference which produces soft, wavy lines on your screen. It may appear due to interference between the pattern of the picture on the screen and the phosphor pitch pattern of the monitor.

Example of moire

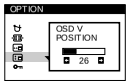
Adjusting the OSD Horizontal Position

To change the horizontal position of the OSD, first press the ☼ ↓/↑ buttons to highlight (OSD H POSITION). Then press the ◑ ←/→ buttons to adjust the horizontal position of the OSD.



Adjusting the OSD Vertical Position

To change the vertical position of the OSD, first press the ☼ ↓/↑ buttons to highlight (OSD V POSITION). Then press the ◑ ←/→ buttons to adjust the vertical position of the OSD.



Locking the controls

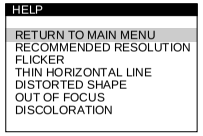
To protect adjustment data by locking the controls, first press ☼ ↓/↑ buttons to highlight (CONTROL LOCK). Then press the ◑ ←/→ buttons to toggle the Control Lock on or off.
Only the ⏻ (power) switch and MENU button will operate.

7 Using the HELP OSD

1 Press the MENU button.
The main MENU appears on the screen.

2 Press the ☼ +/▲ buttons to highlight ⓘ HELP and press the MENU button again.
The HELP OSD appears on the screen.

3 Press the ☼ +/▲ to select an option from the HELP menu, then press the MENU button to view the HELP information.



Resetting the adjustments

Resetting a specific adjustment

Navigate through the on-screen menus to select the adjustment item you want to reset, and press the RESET button before the OSD disappears.

Resetting all of the adjustments for the current input signal

Press the RESET button when no OSD is displayed on the screen. Note that the following items are not reset by this method:
- on-screen menu language (page 8)
- on-screen menu position (page 8)

Resetting all of the adjustment data to the factory presets

Press and hold the reset button for more than two seconds. This resets everything to the factory presets including the input selection.

Note
The RESET button does not function when 🔑 (CONTROL LOCK) is set to ON.

US

Monitor Information

You can display the model name, serial number and year of manufacture using the INFORMATION OSD.

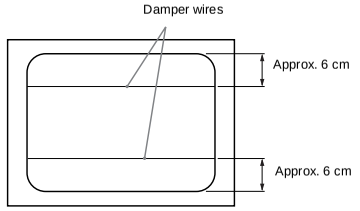
Press and hold the MENU button for 5 seconds.
The INFORMATION OSD appears.

The INFORMATION OSD includes the model name, serial number and year of manufacture.

The OSD automatically disappears after about 30 seconds.

If Thin Lines Appear on Your Screen (damper wires)

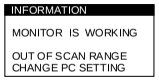
The lines you may be seeing on your screen are normal for the Trinitron monitor and are not a malfunction. These are shadows from the damper wires that stabilize the aperture grille, and are most noticeable when the screen's background is light (usually white). The aperture grille is the essential element that makes a Trinitron picture tube unique by allowing more light to reach the screen, resulting in a brighter, more detailed picture.



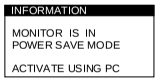
Warning Messages

If there is something wrong with the input signal, one of the following messages appears.

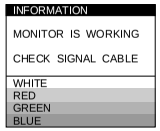
1 **Out of Scan Range**
This message indicates that the current input signal is not appropriate for the monitor's specificatons.



2 **Power Save Mode**
This message indicates that the monitor has reduced power consumption.



3 **Check Signal Cable (self test pattern)**
This message indicates that either no input signal is received, or the video cable is not connected.



To solve these problems, see the "Troubleshooting" section below.

Troubleshooting

If the problem is caused by the connected computer or other equipment, please refer to the connected equipment's instruction manual.

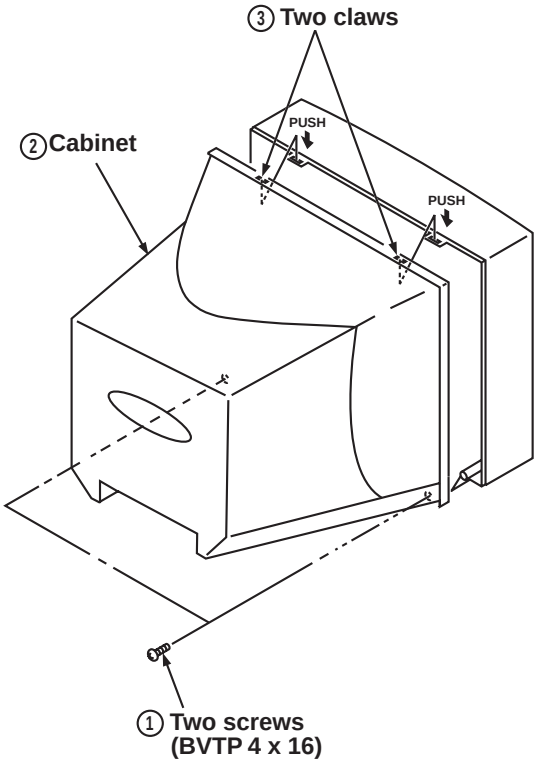
Symptom	Check these items
No picture	
If the ⏻ (power) indicator is not lit	• Check that the power cord is properly connected. • Check that the ⏻ (power) switch is in the "on" position.
If the CHECK SIGNAL CABLE message appears on the screen, or if the ⏻ (power) indicator is either orange or alternating between green and orange	• Check that the video signal cable is properly connected and all plugs are firmly seated in their sockets. • Check that the HD15 video input cable's pins are not bent or pushed in. **■Problems caused by the connected computer or other equipment** • The computer is in power saving mode. Try pressing any key on the computer keyboard. • Check that the computer's power is "on." • Check that the graphic video board is completely seated in the proper bus slot.
If the OUT OF SCAN RANGE message appears on the screen	**■Problems caused by the connected computer or other equipment** • Check that the video frequency range is within that specified for the monitor. If you replaced an old monitor with this monitor, reconnect the old monitor and adjust the frequency range to the following: Horizontal: 30 – 85 kHz Vertical: 48 – 120 Hz
Picture flickers, bounces, oscillates, or is scrambled	• Isolate and eliminate any potential sources of electric or magnetic fields such as other monitors, laser printers, electric fans, fluorescent lighting and televisions. • Move the monitor away from power lines or place a magnetic shield near the monitor. • Try plugging the monitor into a different AC outlet, preferably on a different circuit. • Try turning the monitor 90° to the left or right. **■Problems caused by the connected computer or other equipment** • Check your graphic video board manual for the proper monitor setting. • Confirm that the graphics mode (VESA, VGA, etc.) and the frequency of the input signal are supported by this monitor (Appendix). Even if the frequency is within the proper range, some graphic video boards may have a sync pulse that is too narrow for the monitor to sync correctly. • Adjust the computer's refresh rate (vertical frequency) to obtain the best possible picture.

Symptom	Check these items
Picture is fuzzy	• Adjust the brightness and contrast (page 5). • Degauss the monitor* (page 8). • If CANCEL MOIRE is ON, the picture may become fuzzy. Decrease the moire cancellation effect (page 8) or set CANCEL MOIRE to OFF.
Picture is ghosting	• Eliminate the use of video cable extensions and/or video switch boxes. • Check that all plugs are firmly seated in their sockets.
Picture is not centered or sized properly	• Adjust the size (page 7) or centering (page 7). Note that some video modes do not fill the screen to the edges.
Edges of the image are curved	• Adjust the geometry (page 7).
Wavy or elliptical pattern (moire) is visible	• Cancel the moire (page 8). **■Problems caused by the connected computer or other equipment** • Change your desktop pattern.
Color is not uniform	• Degauss the monitor* (page 8). If you place equipment that generates a magnetic field, such as a speaker, near the monitor, or if you change the direction the monitor faces, color may lose uniformity.
White does not look white	• Adjust the color temperature (page 7).
Letters and lines show red or blue shadows at the edges	• Adjust the convergence (page 8).
Monitor buttons do not operate	• If the control lock is set to ON, set it to OFF (page 8).
A hum is heard right after the power is turned on	• This is the normal sound of the auto-degauss cycle. When the power is turned on, the monitor is automatically degaussed for 3 seconds.

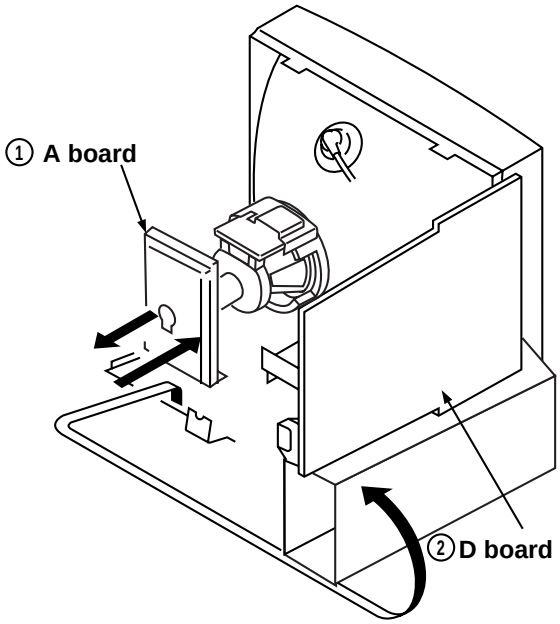
* If a second degauss cycle is needed, allow a minimum interval of 20 minutes for the best result. A humming noise may be heard, but this is not a malfunction.

SECTION 2
DISASSEMBLY

2-1. CABINET REMOVAL

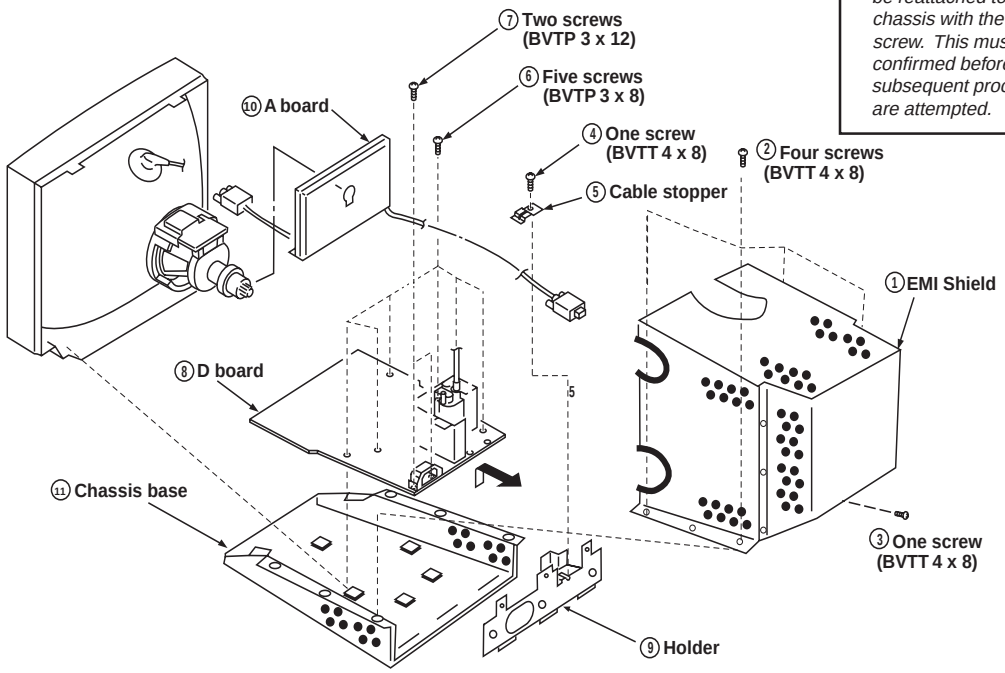


2-2. SERVICE POSITION

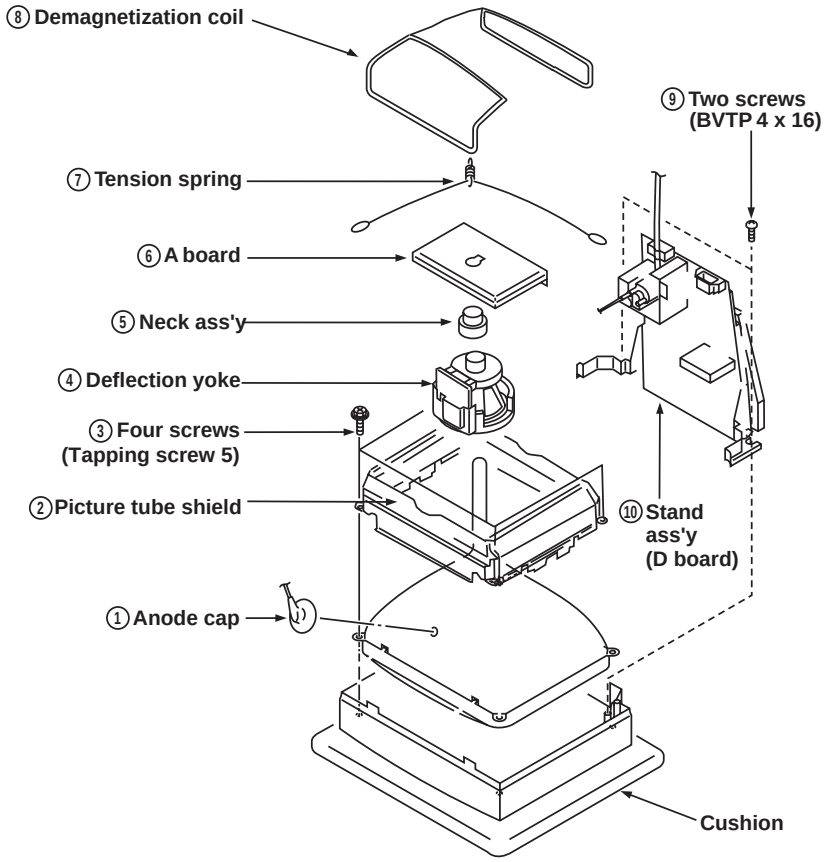


1 When the D-board is placed in service position, the Safety Earth Wire (green and yellow wire) is disconnected.
2 After service is completed and the D-board reinstalled, the Safety Earth Wire must be reattached to the chassis with the proper screw. This must be confirmed before any subsequent procedures are attempted.

2-3. A and D BOARD REMOVAL



2-4. PICTURE TUBE REMOVAL

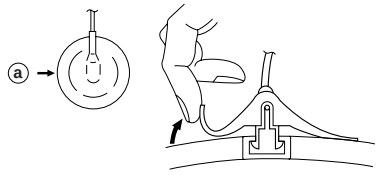


ANODE CAP REMOVAL

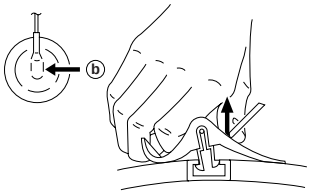
WARNING: High voltage remains in the CRT even after the power is disconnected. To avoid electric shock, discharge CRT **before** attempting to remove the anode cap. Short between anode and CRT coated earth ground strap.

NOTE: After removing the anode, short circuit the anode of the picture tube and the anode cap to either the metal chassis, CRT shield, or carbon painted on the CRT.

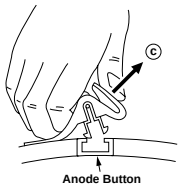
REMOVAL PROCEDURES



1 Turn up one side of the rubber cap in the direction indicated by arrow ⓐ.



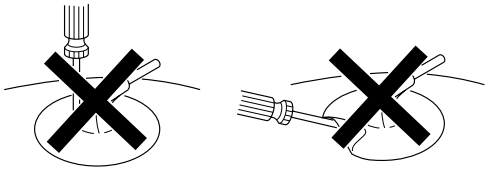
2 Use your thumb to pull the rubber cap firmly in the direction indicated by arrow ⓑ.



3 When one side of the rubber cap separates from the anode button, the anode cap can be removed by turning the rubber cap and pulling it in the direction of arrow ⓒ.

HOW TO HANDLE AN ANODE CAP

1 Do not use sharp objects which may cause damage to the surface of the anode cap.
2 Do not squeeze the rubber covering too hard to avoid damaging the anode cap. A material fitting called a shatter-hook terminal is built into the rubber.
3 Do not force turn the foot of the rubber cover. This may cause the shatter-hook terminal to protrude and damage the rubber.



SECTION 3
SAFETY RELATED ADJUSTMENTS

When replacing parts shown in the table below, the following operational checks must be performed as a safety precaution against X-ray emissions from the unit.

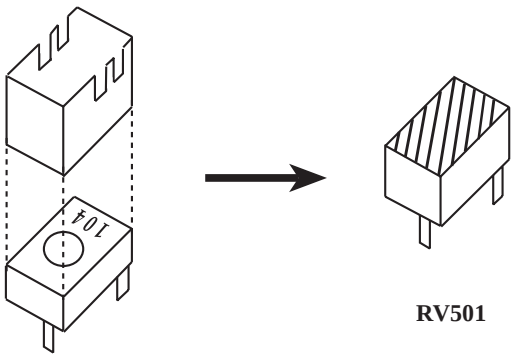
	Part Replaced (⧓)
HV ADJ	RV501

	Part Replaced (◪)	
HV Regulator Circuit	D board	T501, IC501, RV501, R540, R541, R542, R544, R564, R567, R568, C532, C534, C539, C553, C554, C555, C556, C558, C561
HV HOLD DOWN Circuit	D board	T501, R510, R543, R547, R549, R552, R595, D515, D517, C540, C542, C544, IC607, IC901
Beam Current Protector Circuit	D board	T501, R545, R546, R548, R550, R596, R934, C535, C541, IC605, IC607, IC901

※ Allow the unit to warm up for one minute prior to checking the following conditions:

a) HV Regulator Check

1) Input white cross hatch signal. (fH = 80 kHz)
2) CONT maximum and BRT center
3) Cut off Screen VR (G2).
4) Input voltage: 120 ± 2 VAC.
5) Confirm that the voltage is within the voltage range shown below.
   Standard voltage: 26.9 KV ± 0.4 KV
6) When replacing components identified by ◪, make sure to recheck the High Voltage.
7) Verify the High Voltage as shown above (26.9 KV ± 0.4 KV) is within specification. If not, set H. SIZE data at minimum (-127) and then adjust RV501 on "D" board.



RV501

8) After adjusting the High Voltage within specification, put the RV cover on RV501 as shown below and apply sufficient amount of RTV around RV501.

b) HV Protector Circuit Check

1) Confirm that the voltage between cathode of D517 an GND is more than 27.5 VDC.
2) Using an external DC Power supply, apply the voltage shown below between cathode of D517 on "D" and GND, and confirm that the HV Hold-Down circuit works. (Raster disappears) Apply DC Voltage: Less than 35.5 VDC.

Check Condition

- Input voltage: 120 ± 2 VAC
- Input signal: (fH =80 kHz), White Cross Hatch
- Controls: CONT (max) & BRT (center)
- B+ Voltage: 180 ± 3.0 VDC

c) Beam Protector Check (Software logic)

1) Using an external current source, apply < 1.55mA between pin ⑪ of FBT (T501) and GND, and confirm that the raster fades out.

Check Condition

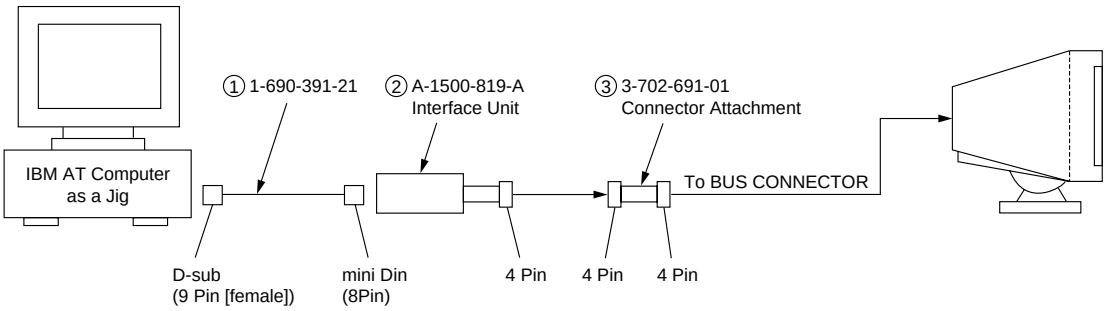
- Input voltage: 120 ± 2 VAC
- Input signal : (fH = 80 kHz), White Cross Hatch
- Controls: CONT (max) & BRT (min)

d) B+ Voltage Check

1) Input white cross hatch (fH = 80 kHz) signal.
2) CONT (max) & BRT (center).
3) Input voltage: 110 ± 10 VAC.
   Note: Use NF power supply or make sure that distortion factor is 3% or less.
4) Confirm that the voltage is within the voltage range shown below.
   Standard voltage: 180 ± 3.0 VDC

SECTION 4
ADJUSTMENTS

Connect the communication cable of the connector located on the D board on the monitor. Run the service software and then follow the instructions.



*The parts above (①~③) are necessary for DAS adjustment.

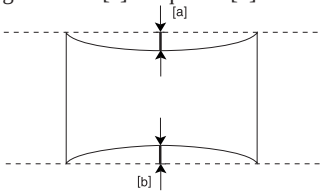
※ Allow a 30 minute warm-up period prior to making the following adjustments:

4-1. Landing Rough Adjustment

1. Display the all white pattern.
2. Adjust the contrast to maximum value.
3. Display the plain green pattern.
4. Slide the DY back and roughly adjust the plain green pattern with the purity magnet so that it is centered on the screen.
5. Moving the DY forward, adjust so that an entire screen becomes pure green.
6. Adjust the tilt of DY and tighten lightly with a clamp.

4-2. Landing Fine Adjustment

1. Place the monitor in the Helmholtz coil.
2. Set TLH plate to zero position.
3. Display plain green pattern.
4. Degauss CRT face and iron parts with degauss equipment or hand-degausser.
5. Perform auto degauss.
6. Attach a wobbling coil to the specified position of CRT neck.
7. Put the sensor of landing checker to CRT face.
8. Adjust purity, DY position and DY tilt.
9. Tighten DY screw.
10. Perform auto degauss.
11. Adjust top and bottom pin by pitching DY up and down with two wedges so that [a] is equal to [b].

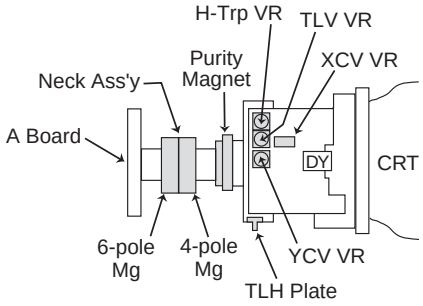


12. If the corner landing is out of specification, use a disk magnet for the landing correction.
13. If disk magnets were used, perform an auto degauss.
14. Remove the wobbling coil and sensor.
15. Fix the purity magnet on DY with white paint.

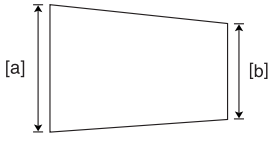
4-3. Convergence Rough Adjustment

1. Enter the white crosshatch signal.
2. Roughly adjust the horizontal (H.STAT) and vertical (V.STAT) convergence at four-pole magnet.
3. Roughly adjust HMC and VMC at six-pole magnet.

4-4. Convergence and V. Key (H. Trp) Fine Adjustment

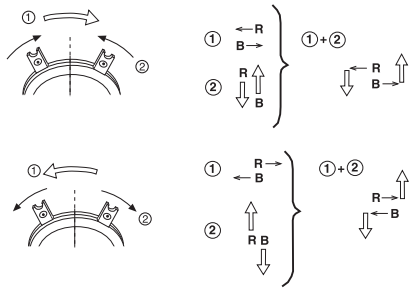


1. Display crosshatch pattern with green lines and black field.
2. Adjust V. Key (=H. Trapezoid) with H-Trp VR so that [a] is equal to [b].



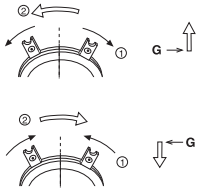
3. Change "CONV_OFF_NDX" to "7".
4. Display crosshatch pattern with red and blue lines and black field.
5. Adjust H.STAT and V.STAT with 4 pole magnet. Use 4 pole magnet, not "HSTAT" and "VSTAT".

4 Pole Magnet



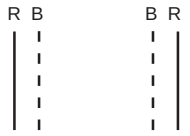
6. Display crosshatch pattern with white lines and black field.
7. Adjust HMC and VMC with 6 pole magnet.

6 Pole Magnet



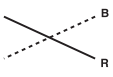
8. Display crosshatch pattern with red and blue lines and black field.
9. If necessary, repeat steps 5-8.
10. Change "CONV_OFF_NDX" to "3".
11. Adjust H.TILT with TLH plate.

TLH Movement



12. Adjust XCV with XCV VR.

XCV Movement

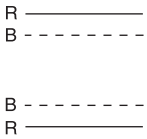


13. Adjust YCH with YCH VR.

YCH Movement

14. Adjust V.TILT with TLV VR.

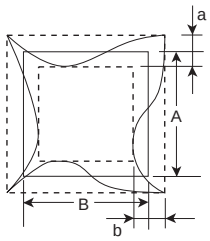
TLV Movement



15. If necessary, repeat steps 3-14 to make the optimum condition for the entire screen.
16. Fix 4-pole magnet, 6-pole magnet and XCV VR with white paint.

Zero Position Neck Ass'y

4-5. Vertical and Horizontal Position and Size Specification

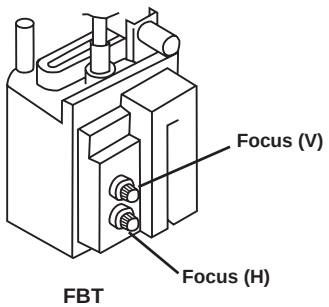


	$f_H \geq 60kHz$	$f_H \leq 60kHz$
a =	2.0 mm	2.4 mm
b =	2.0 mm	2.4 mm

A	B
234	312

4-6. Focus Adjustment

Adjust focus (V) and focus (H) for optimum focus.

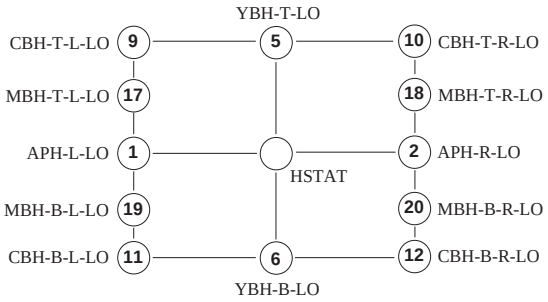


4-7. Digital Convergence Adjustment

Convergence (Low) Mode

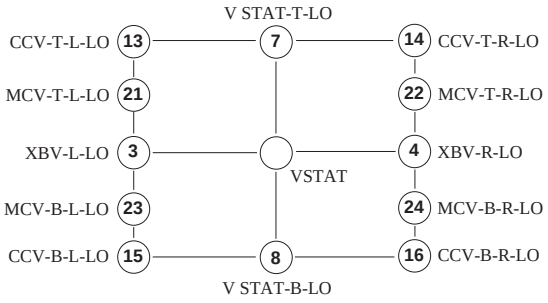
1. Adjust the H.STAT and V.STAT with "HSTAT" and "VSTAT".

A. Horizontal Convergence



Adjust each misconvergence point in sequence.

B. Vertical Convergence



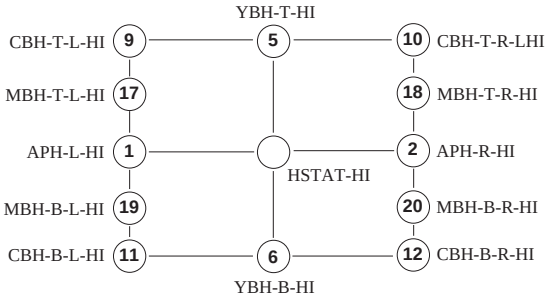
Adjust each misconvergence point in sequence.

2. Repeat the procedure of A and B so that the convergence of the entire screen is within the specification.

Convergence (High) Mode

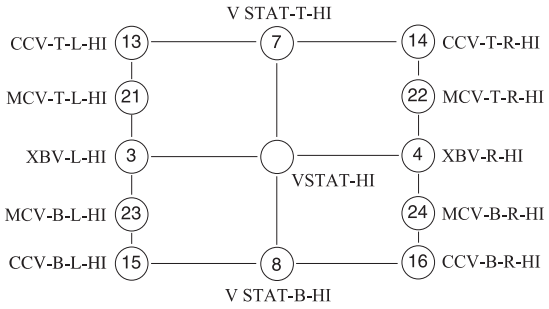
1. Adjust the H.STAT and V.STAT with "HSTAT-HI" and "VSTAT-HI".

Horizontal Convergence



Adjust each misconvergence point in sequence.

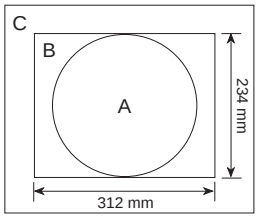
Vertical Convergence



Adjust each misconvergence point in sequence.

2. Repeat the procedure of A and B so that the convergence of the entire screen is within the specification.

4-8. Convergence Specification



A Zone:

Primary Mode	Others
H: ≤ 0.25mm	H: ≤ 0.3mm
V: ≤ 0.25mm	V: ≤ 0.3mm

B Zone:

Primary Mode	Others
H: ≤ 0.3mm	H: ≤ 0.4mm
V: ≤ 0.3mm	V: ≤ 0.4mm

C Zone:

Primary Mode	Others
H: ≤ 0.35mm	H: ≤ 0.4mm
V: ≤ 0.35mm	V: ≤ 0.4mm

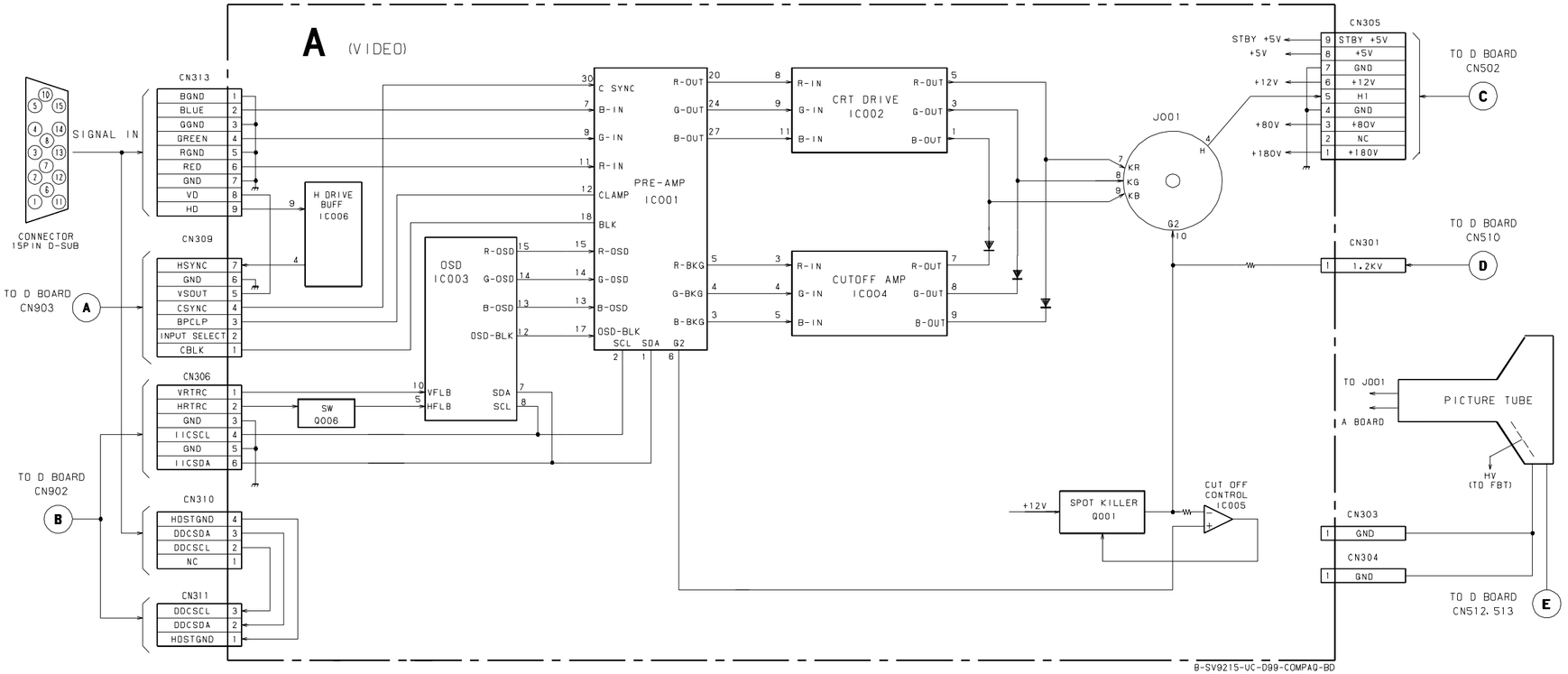
NOTES:

NOTES:

NOTES:

SECTION 5
DIAGRAMS

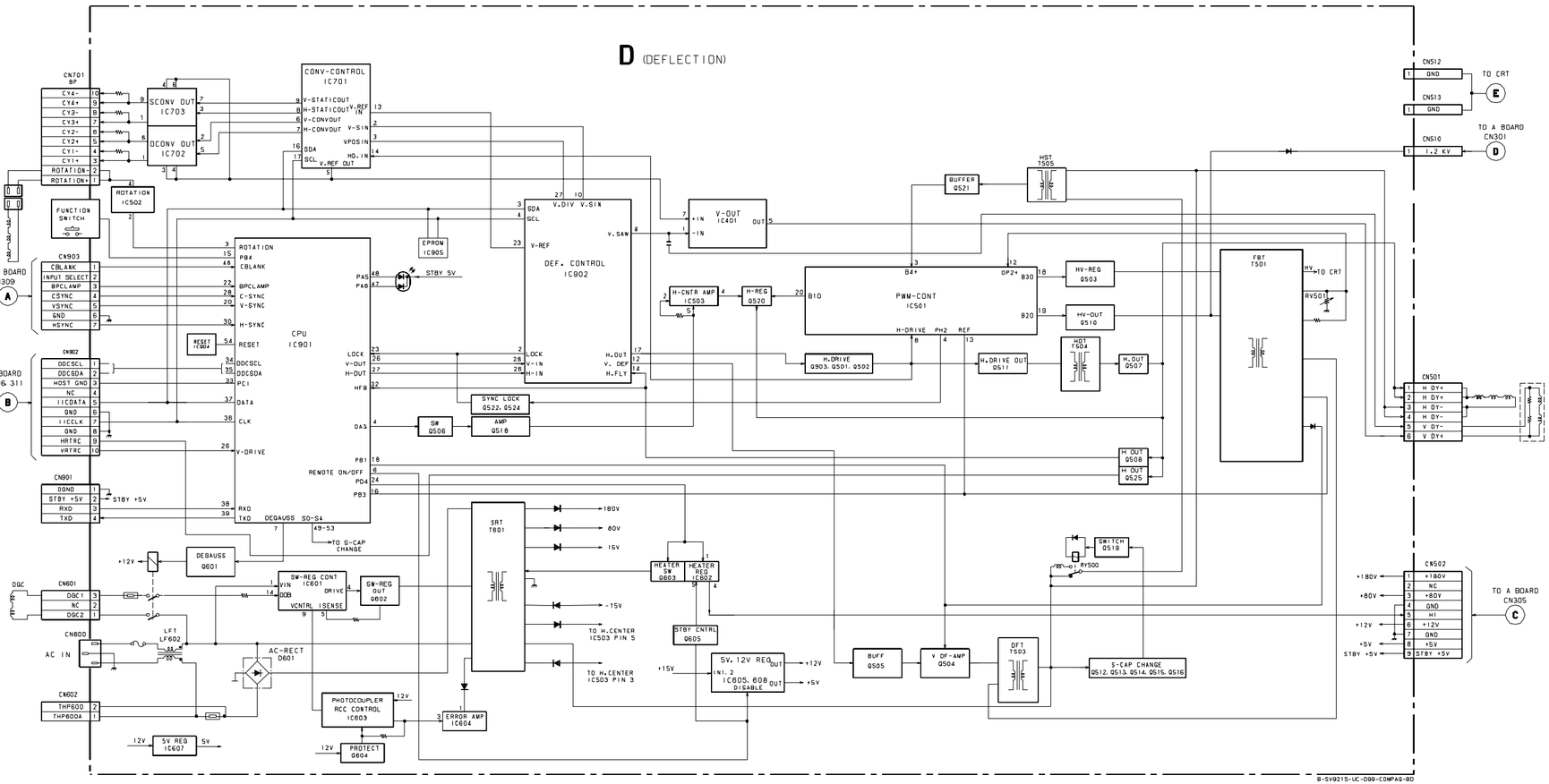
5-1-1. BLOCK DIAGRAM (1/2)



19-22 FOLDOUT1.p65 1 8/30/99, 1:48 PM

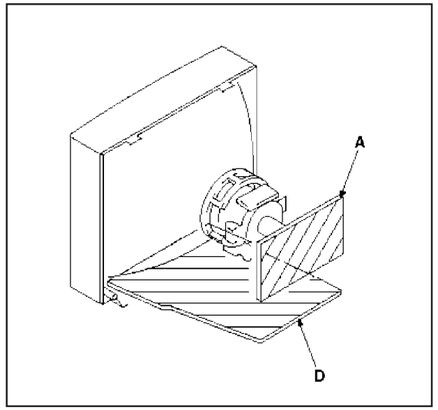
P700

5-1-2. BLOCK DIAGRAM (2/2)



19-22 FOLDOUT1.p65 2 8/30/99, 1:48 PM

5-2. CIRCUIT BOARDS LOCATION



5-3. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

Note:

- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytic.
- Indication of resistance, which does not have one for rating electrical power, is as follows.

Pitch: 5 mm
Rating electrical power 1/4 W (CHIP: 1/10 W)

- All resistors are in ohms.
  - : nonflammable resistor.
  - : fusible resistor.
  - : internal component.
  - : panel designation and adjustment for repair.
  - All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
  - ⊥ : earth-ground
  - ⏚ : earth-chassis.
  - The components identified by ⋈ in this basic schematic diagram have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.
  - When replacing components identified by ◪, make the necessary adjustments by using RV501 (⋈) as indicated. (See page 12)

Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Note: Les composants identifies per un trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

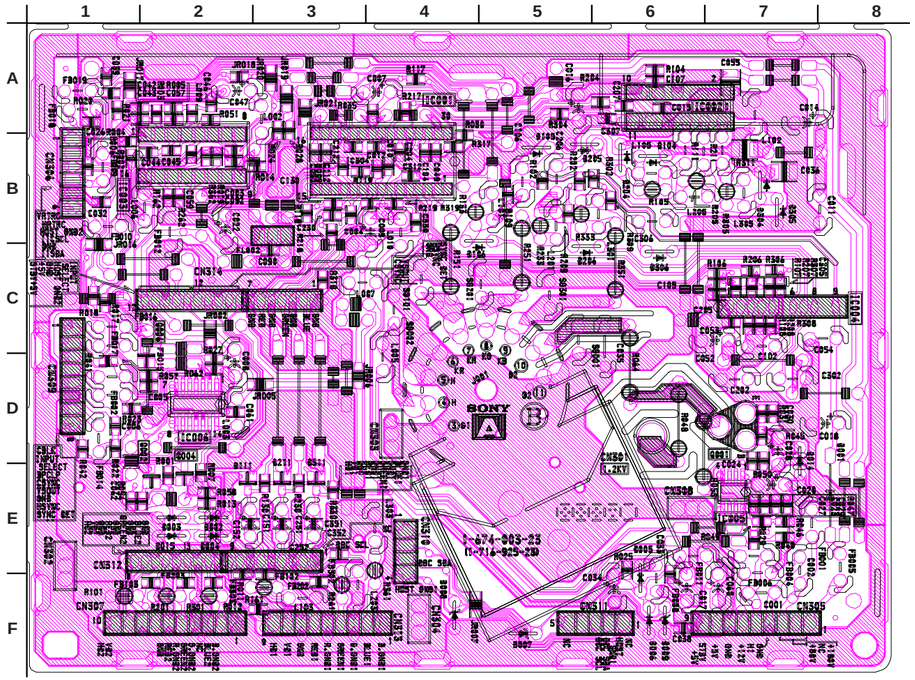
- When replacing parts shown in the table below, be sure to perform the safety related adjustment.

	Part Replaced (⋈)
HV ADJ	RV501

	Part Replaced (◪)	
HV Regulator Circuit	D board	T501, IC501, RV501, R540, R541, R542, R544, R564, R567, R568, C532, C534, C539, C553, C554, C555, C556, C558, C561
HV HOLD DOWN Circuit	D board	T501, R510, R543, R547, R549, R552, R595, D515, D517, C540, C542, C544, IC607, IC901
Beam Current Protector Circuit	D board	T501, R545, R546, R548, R550, R596, R934, C535, C541, IC605, IC607, IC901

- All voltages are in volts.
- Readings are taken with a 10 M Ω digital multimeter
- Readings are taken with a color-bar signal input.
- Voltage variations may be noted due to normal production tolerances.
- * : Cannot be measured.
- Circled numbers are waveform references.
- ——— : B +bus.
- - - - : B - bus.

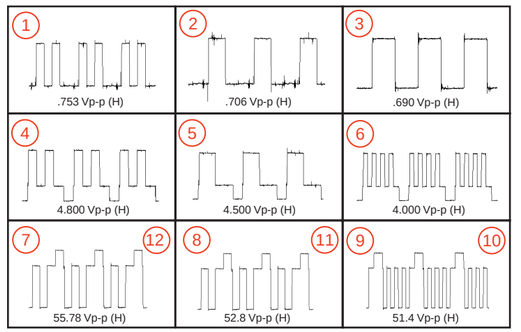
A [VIDEO]



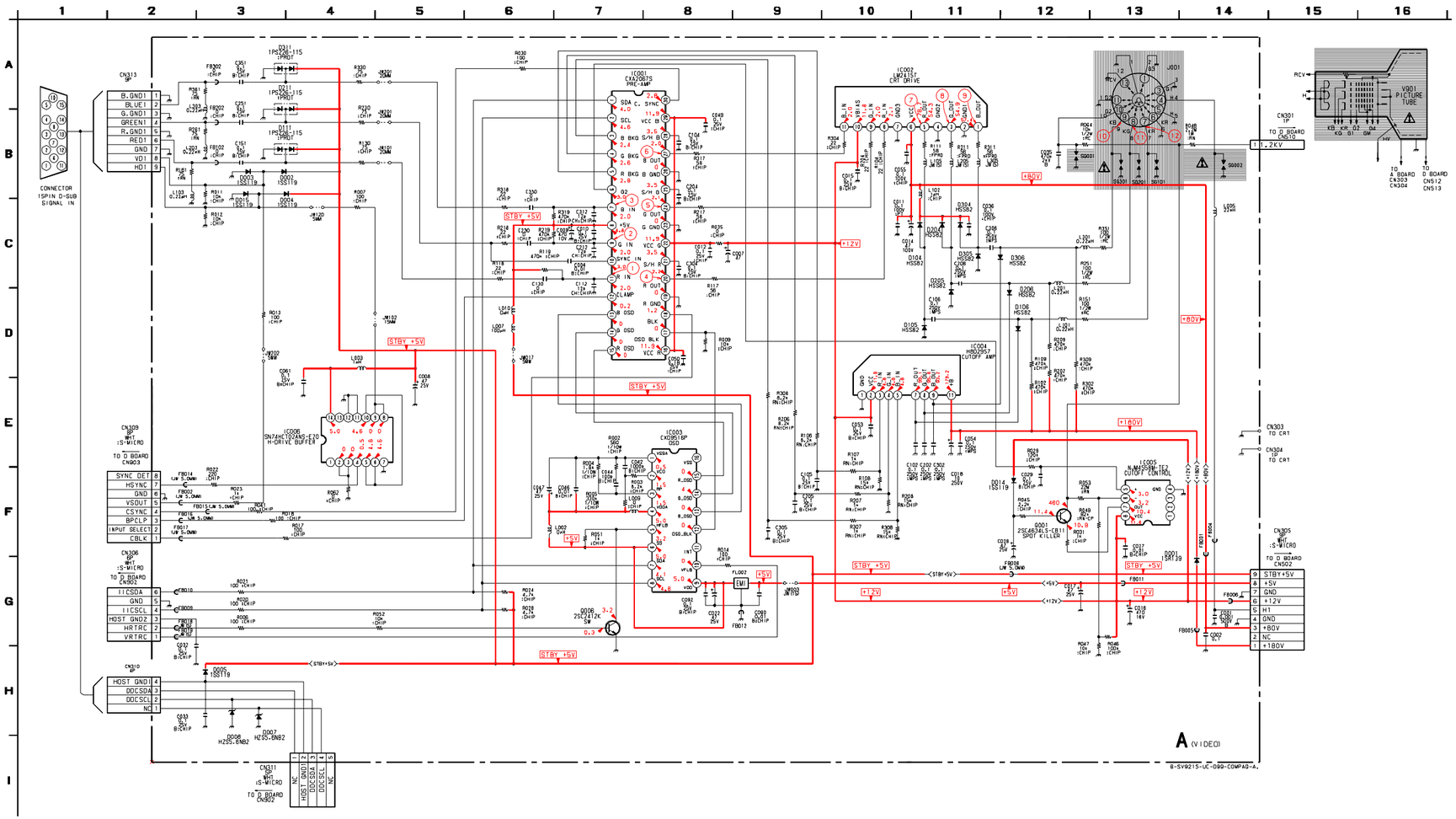
A BOARD SEMICONDUCTOR LOCATION

DIODES		D004	E-2	D014	D-7	D106	B-5	D206	B-6	D306	B-6	IC002	A-6	IC006	D-2
D001	E-8	D005	F-6	D015	E-2	D111	E-2	D211	E-3	D311	E-3	IC003	B-2	TRANSISTORS	
D002	E-2	D007	F-5	D104	B-6	D204	B-6	D304	B-6	IC		IC004	C-7	Q001	D-7
D003	E-2	D008	F-5	D105	A-5	D205	B-6	D305	B-7	IC001	B-4	IC005	E-7	Q006	D-2

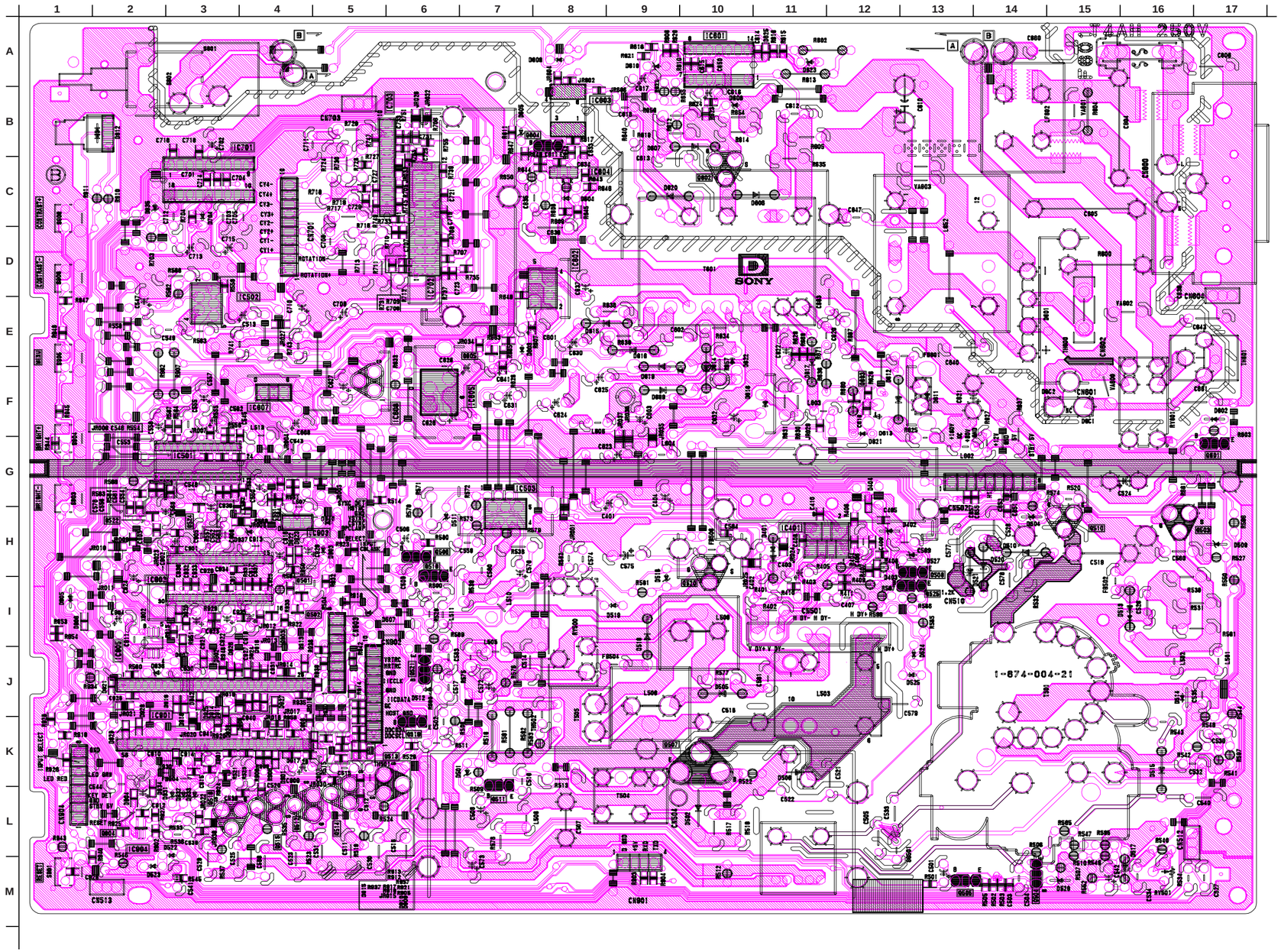
A BOARD WAVEFORMS



A Board Schematic Diagram



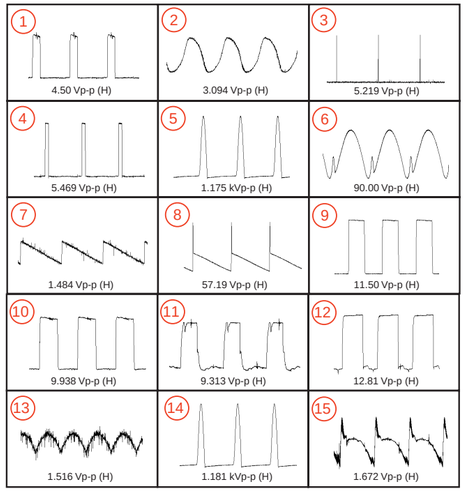
D [DEFLECTION]



D BOARD SEMICONDUCTOR LOCATION

DIODES		D619	F-8	IC503	G-7
D401	H-10	D620	B-9	IC601	A-10
D402	G-12	D621	F-12	IC602	E-7
D403	I-12	D622	F-9	IC603	B-8
D404	H-12	D704	C-3	IC604	C-8
D501	K-6	D901	K-4	IC605	F-6
D502	L-9	D902	J-3	IC607	F-4
D504	H-14	D903	H-3	IC608	F-4
D505	J-10	D904	L-2	IC701	C-3
D506	K-6	D905	J-1	IC702	C-6
D507	J-5	D906	J-1	IC703	C-5
D509	J-5	D907	J-2	IC901	J-3
D510	H-17	D908	J-2	IC902	I-3
D511	H-6	D909	J-3	IC904	L-2
D512	K-6	D910	J-2	IC905	I-2
D513	I-15	D911	J-2	**TRANSISTOR**	
D514	F-10	D912	B-1	Q501	I-4
D515	L-16	D913	J-4	Q502	I-4
D516	K-9	D914	J-2	Q503	H-16
D517	M-15	D915	L-5	Q504	M-14
D518	K-9	D916	J-3	Q505	M-13
D519	J-9	D917	K-4	Q506	H-6
D520	H-14	D918	J-3	Q507	K-10
D521	I-13	D919	J-2	Q508	H-12
D522	L-2	D920	K-5	Q510	H-14
D523	L-2	D921	J-3	Q511	K-7
D524	J-12	D922	H-3	Q512	L-4
D525	J-12	D923	H-3	Q513	L-5
D527	H-12	D924	J-3	Q514	K-5
D601	E-14	D925	J-2	Q515	L-3
D602	F-17	D926	J-3	Q516	L-3
D603	F-7	D927	J-3	Q518	H-11
D604	C-8	D928	K-1	Q519	K-5
D605	C-7	D929	K-1	Q520	I-9
D606	B-10	D930	J-2	Q521	J-6
D607	C-9	D931	L-3	Q522	H-2
D608	A-8	D932	L-3	Q524	H-3
D609	A-8	D933	L-3	Q525	
D610	A-8	D934	L-2	Q601	G-17
D611	F-14	D935	C-3	Q602	C-9
D612	F-11	D936	J-2	Q603	F-12
D613	F-12	D937	H-3	Q604	C-7
D614	F-9	D938	H-3	Q605	E-7
D615	F-8	**IC**		Q903	I-4
D616	F-8	IC401	H-11	**CRYSTAL**	
D617	F-11	IC501	G-3	X901	K-2
D618	F-10	IC502	E-3	X902	J-2

D BOARD WAVEFORMS

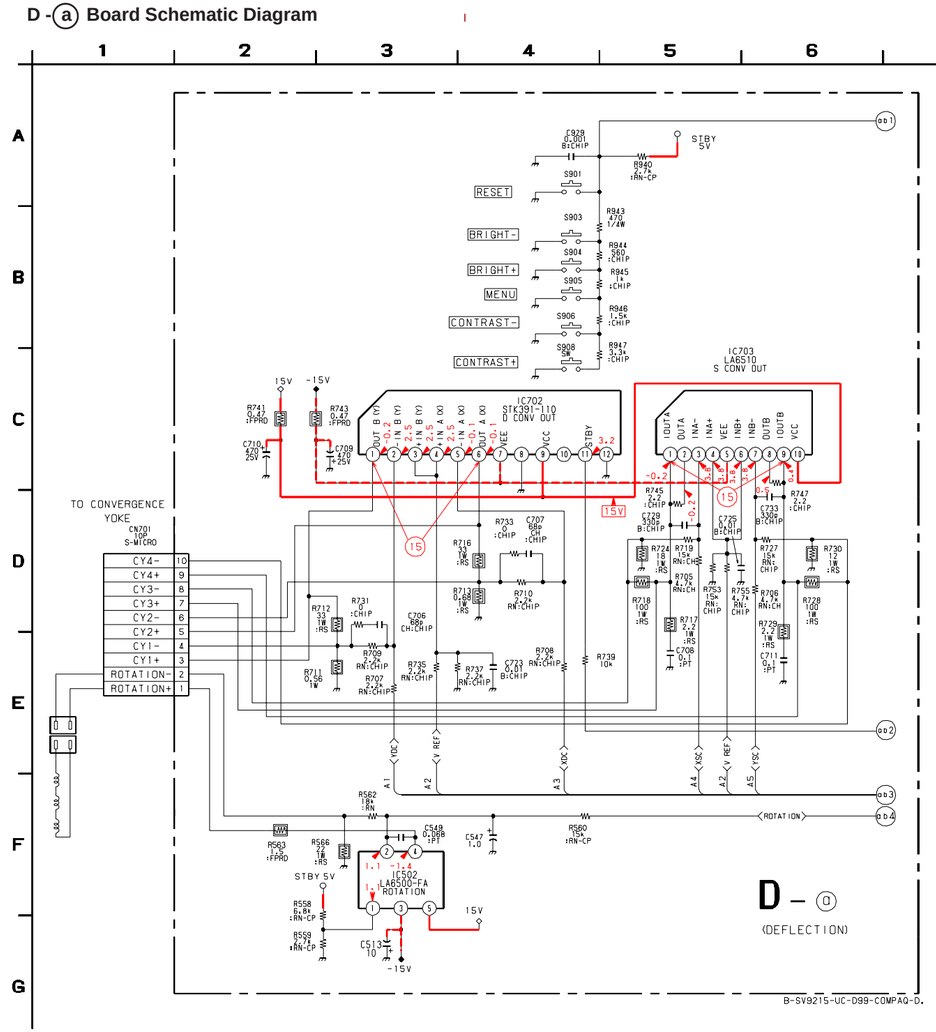


Note:
Divided circuit diagram
One sheet of D board circuit diagram is divided into three sheets, each having the code D - (a) to D - (d). For example, the destination (ab1) on the code D - (a) sheet is connected to (ab1) on the D - (b) sheet.

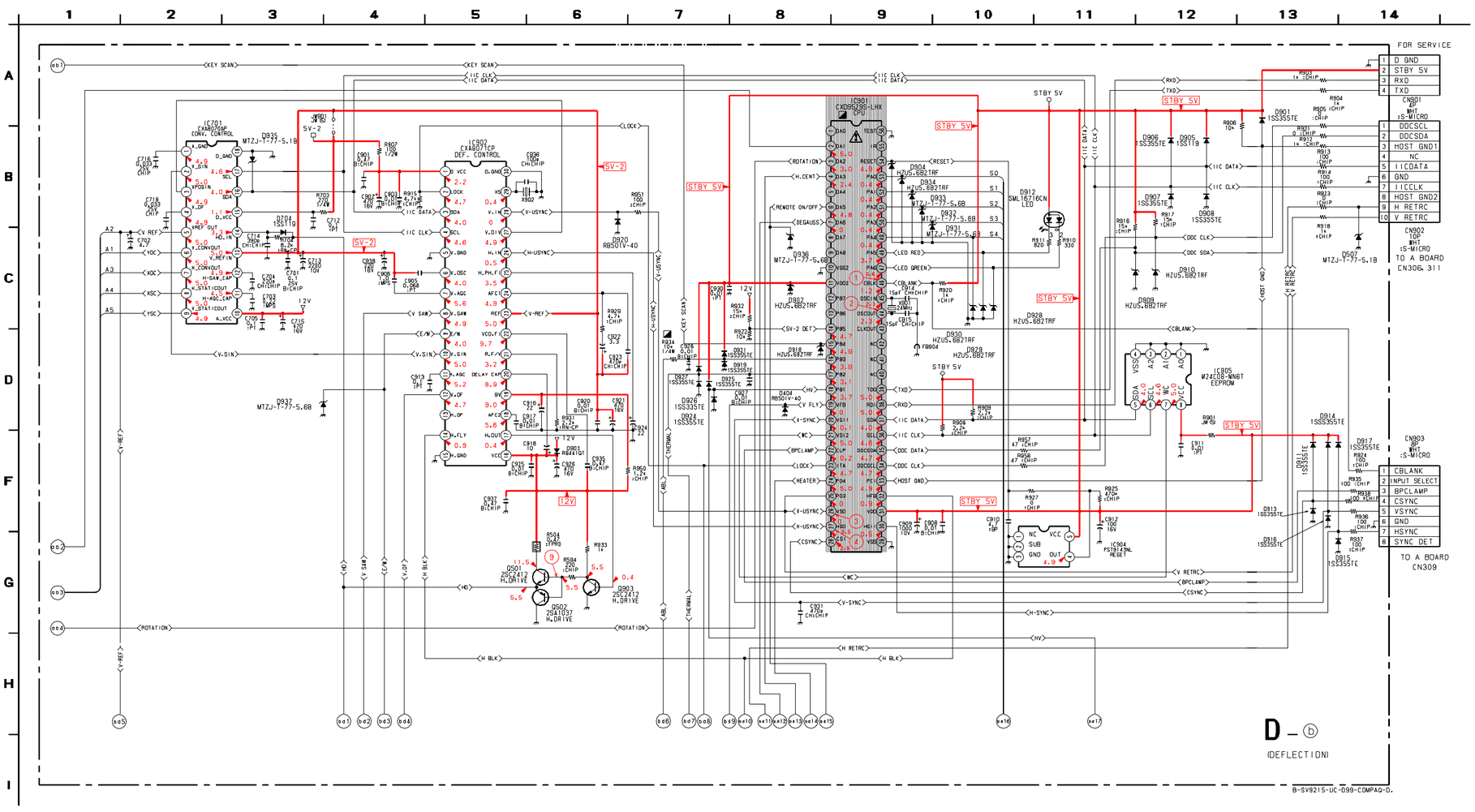
a b 1
→ Ref. No.
→ Circuit diagram division code

NOTE:
Portions of this circuit marked as shown are high voltage areas. Use care to prevent electric shocks during inspection or repair.

D - (a) Board Schematic Diagram



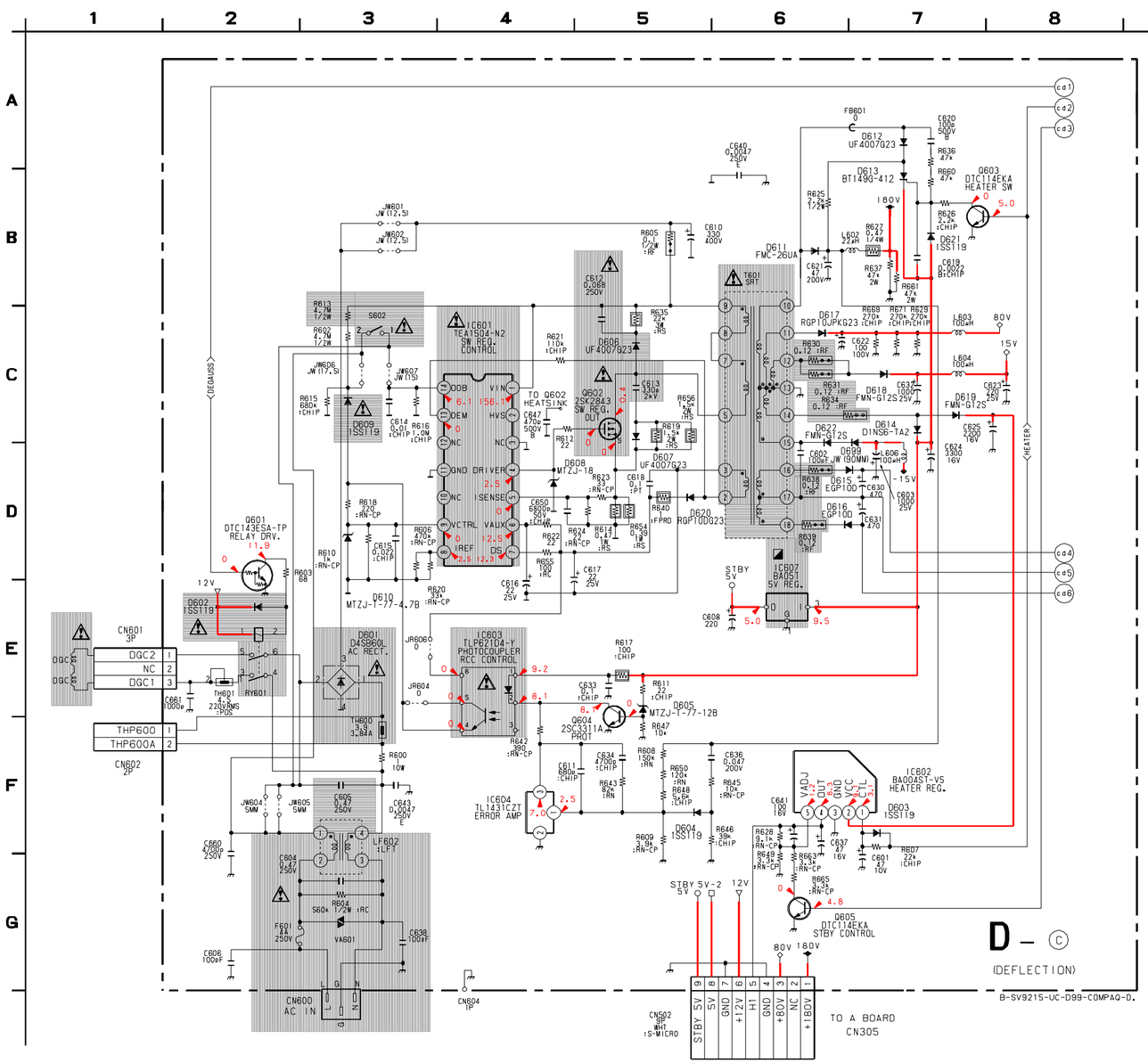
D - ⓑ Board Schematic Diagram



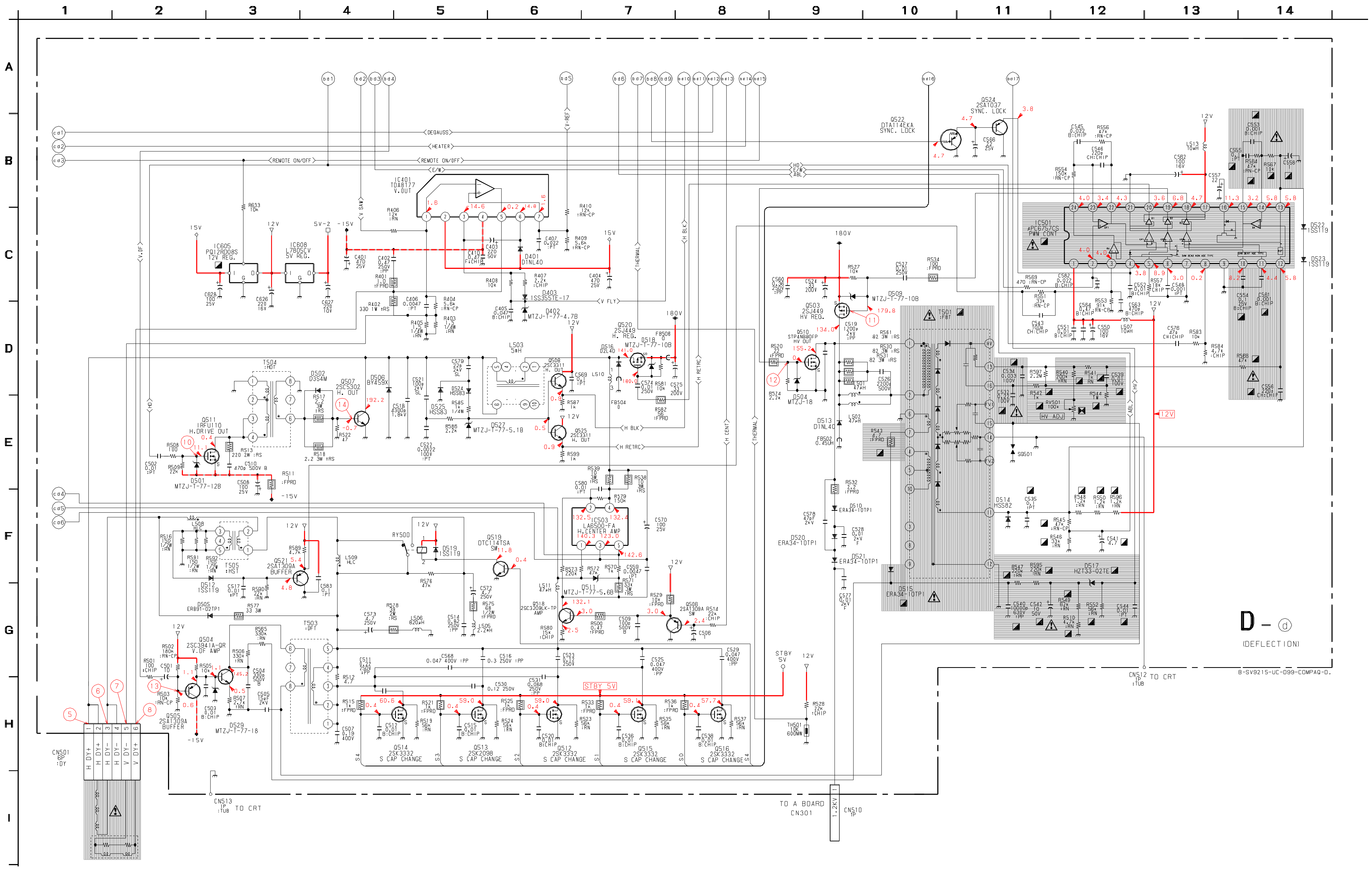
31-36 FOLDOUT 4.8.30.p65 1

8/31/99, 11:14 AM

D - (C) Board Schematic Diagram

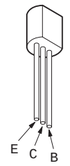


D -ⓓ Board Schematic Diagram

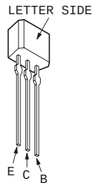

IC401 TDA8177 V.OUT
IC605 PQ12RD08S 12V REG.
IC608 L7805CV 5V REG.
IC501 μPC6757CS PWM CONT
IC503 LA6500-FA H.CENTER AMP
Q511 IRFU110 H.DRIVE OUT
Q507 2SC5302 H. OUT
Q503 2SJ449 HV REG.
Q510 STP4NB80FP HV OUT
Q520 2SJ449 H. REG.
Q508 2SC3311 H. OUT
Q525 2SC3311 H. OUT
Q522 DTA114EKA SYNC. LOCK
Q524 2SA1037 SYNC. LOCK
Q521 2SA1309A BUFFER
Q519 DTC114TSA SW
Q518 2SC3209LK-TP AMP
Q506 2SA1309A SW
Q504 2SC3941A-QR V.DF AMP
Q505 2SA1309A BUFFER
Q514 2SK3332 S CAP CHANGE
Q513 2SK2098 S CAP CHANGE
Q512 2SK3332 S CAP CHANGE
Q515 2SK3332 S CAP CHANGE
Q516 2SK3332 S CAP CHANGE
T501 :FBT
T503 :DFT
T504 :HDT
T505 :HST
RY500
HV ADJ
STBY 5V
DEGAUSS
HEATER
REMOTE ON/OFF
CN501 6P :DY
H DY+
H DY+
H DY−
H DY−
V DY−
V DY+
CN513 1P :TUB TO CRT
CN512 1P :TUB TO CRT
TO A BOARD CN301
CN510 1P
D −ⓓ
(DEFLECTION)
B-SV9215-UC-D99-COMPAQ-D.

5-4. SEMICONDUCTORS

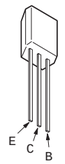
2SC2610



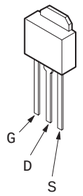
2SA1175-HFE
2SC2785-HFE
DTC114TSA
2SC3311A-QRSTA



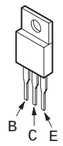
DTC143ESA



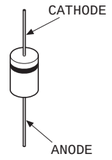
2SK2605LBSONY
2SK3155-01
2SK2098-01MR-F119
2SK2843LBS2SONY
IRFU110A



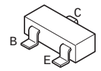
2SC4634LS-CB11



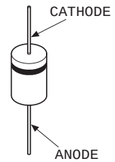
MTZJ-T-77-12B
ERC81-004
EGP10D
RGP10JPKG23
RGP10DG23
RL3Z-LF014-302



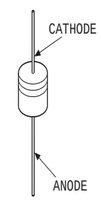
2SC1623-L5L6
2SA1037AK-T146-R
2SC3941A-Q(TA)
DTA114EKA-T146



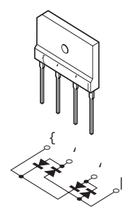
HZU5.6B2TRF
D1NS6
D1NL40-TA2
UF4007G23
RGP02-20EL-6394
ERB91-02



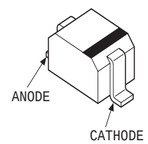
1SS119-25
RD5.1ESB2
RD5.6ESB2
RD18ESB2
RD10ESB2
MTZJ-4.7C
MTZJ-T-77-18
RB441Q-40T-77



D4SB60L



HSS83TD
1SS355TE-17
HSS82



SECTION 6
EXPLODED VIEWS

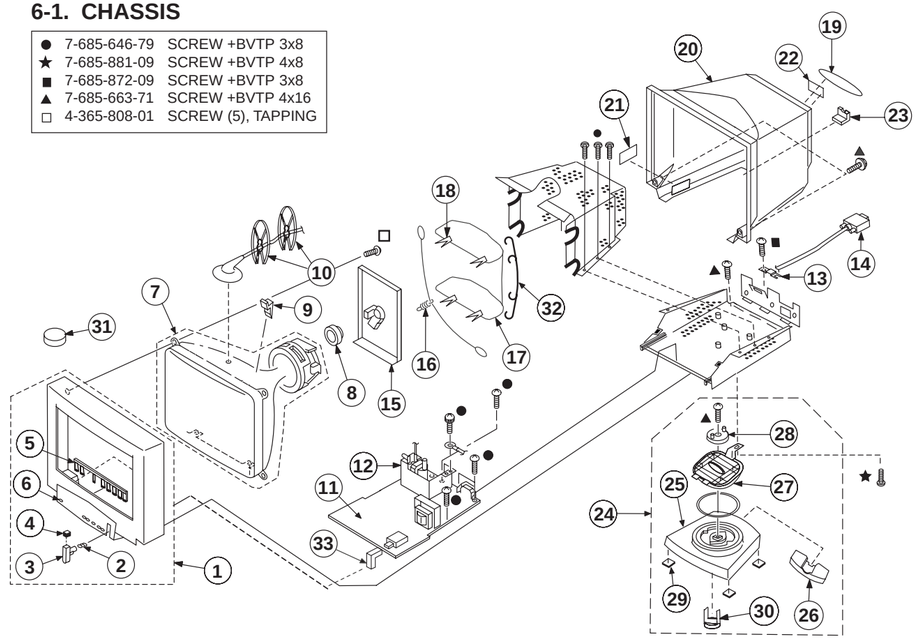
- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The component parts of an assembly are indicated by the reference numbers in the remarks column.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

Note:

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

6-1. CHASSIS

●	7-685-646-79	SCREW +BVTP 3x8
★	7-685-881-09	SCREW +BVTP 4x8
■	7-685-872-09	SCREW +BVTP 3x8
▲	7-685-663-71	SCREW +BVTP 4x16
□	4-365-808-01	SCREW (5), TAPPING

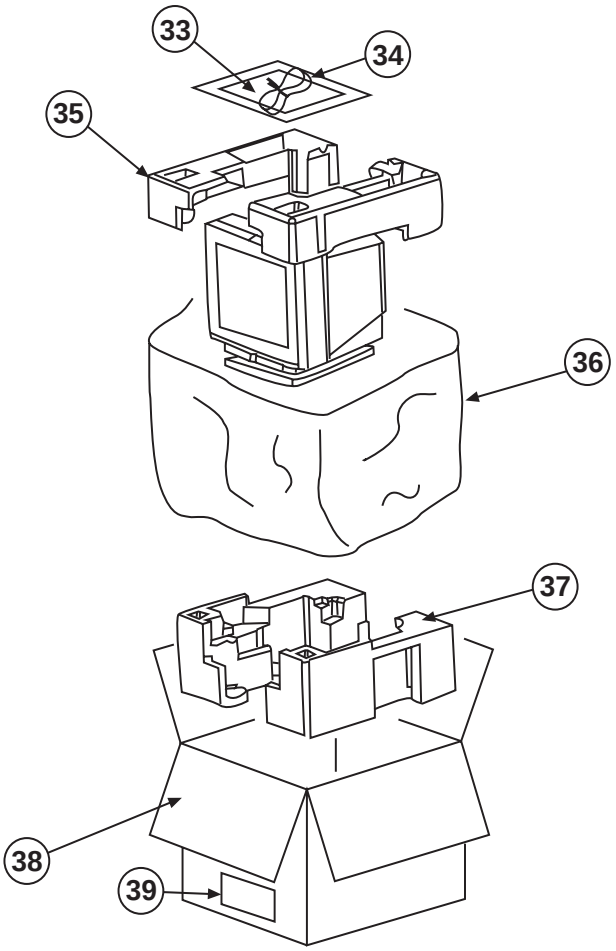


REF.NO.		PART NO.	DESCRIPTION	REMARK
1		X-4037-007-2	BEZEL ASSY	2-6
2		4-063-224-01	SPRING, COMPRESSION	
3		4-071-882-02	BUTTON, POWER	
4		4-071-885-01	GUIDE, LIGHT	
5		4-071-883-02	BUTTON, MULTI	
6		4-071-884-01	BUTTON, RESET	
7	⚠	8-738-550-61	ITC ASSY (17TKB-R1)	
8	⚠	1-452-923-41	NECK ASSEMBLY (NA-2915)	
9		4-040-897-01	SPACER, DY	
10		3-704-372-31	HOLDER, HV CABLE	
11	*	A-1346-891-A	D COMPLETE PC BOARD	
12	⚠	1-453-311-11	FBT ASSEMBLY NX-4404//X4L4	
13	*	4-045-131-01	STOPPER, CABLE	
14		1-791-722-11	CABLE ASSY (15PDSUB CONNECTOR)	
15	*	A-1298-935-A	A COMPLETE PC BOARD	
16	*	4-061-573-01	SPRING, TENSION	
17	⚠	1-419-092-12	COIL, DEGAUSSING	
18		4-045-123-01	HOLDER, DEGAUSSING COIL	
19		4-071-875-01	BADGE, COMPAQ	
20		4-071-874-01	CABINET	
21	*	4-067-757-11	COVER, CONNECTOR	
22		4-071-878-01	LABEL, INFORMATION	
23	*	4-071-056-11	COVER, CABLE	
24		X-4037-008-1	BASE ASSY, STAND	25-30
25		4-071-886-01	BASE, USB STAND	
26	*	4-071-887-01	COVER, USB	
27		4-071-065-21	SLIDER	
28		4-065-886-01	STOPPER, A	
29	*	4-060-533-01	CUSHION	
30		4-065-885-01	STOPPER, B	
31		1-452-032-00	MAGNET, DISC	
32	*	4-371-521-01	BAND (L), DEGAUSS COIL	
33	*	4-394-972-01	CAP, POWER	

The components identified with gray shading and a critical symbol (⚠) are critical for safety. Replace only with part number specified.

Les composantsidentifies per un trame et une marque ⚠ sont critiques pout le securite. Ne les remplacer que par une piece portant le numero specifie.

6-2. PACKING MATERIALS



REF.NO.		PART NO.	DESCRIPTION	REMARK
33		4-071-899-01	KIT, COMPAQ ACCESSORY	
34	⚠	1-782-783-21	CORD SET, POWER	
35	*	4-071-893-02	CUSHION ASSY, UPPER	
36		4-041-927-11	BAG, POLYETHYLENE	
37		4-071-896-01	CUSHION ASSY, LOWER	
38		4-071-892-02	CARTON, INDIVIDUAL	
39		4-071-891-11	LABEL, COMPAQ CARTON	

NOTES:

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SECTION 7
ELECTRICAL PARTS LIST

Note:

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Note:

Les composants identifies per un trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

- The components identified by ⧓ in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.
- Items marked * are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

RESISTORS
- All resistors are in ohms
- F : nonflammable

When indicating parts by reference number, please include the board name.

A

*** A-1298-935-A A BOARD, COMPLETE**

4-382-854-01 SCREW (M3X8), P, SW (+)

CAPACITOR

REF. NO.	PART NO.	DESCRIPTION			
C001	1-162-318-11	CERAMIC	0.001µF	10%	500V
C002	1-106-220-00	MYLAR	0.1µF	10%	100V
C004	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C007	1-104-664-11	ELECT	47µF	20%	25V
C008	1-104-664-11	ELECT	47µF	20%	25V
C009	1-126-925-11	ELECT	470µF	20%	10V
C010	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C011	1-106-220-00	MYLAR	0.1µF	10%	100V
C012	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C014	1-107-932-11	ELECT	47µF	20%	100V
C015	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C016	1-128-528-11	ELECT	470µF	20%	16V
C017	1-104-664-11	ELECT	47µF	20%	25V
C018	1-107-961-91	ELECT	10µF	20%	250V
C022	1-104-664-11	ELECT	47µF	20%	25V
C027	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C028	1-104-664-11	ELECT	47µF	20%	25V
C029	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C032	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C033	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C035	1-162-134-11	CERAMIC	470pF	10%	2KV
C036	1-104-503-12	CERAMIC CHIP	0.1µF	10%	100V
C042	1-163-009-11	CERAMIC CHIP	0.001µF	10%	50V
C044	1-163-251-11	CERAMIC CHIP	100pF	5%	50V
C046	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C047	1-104-664-11	ELECT	47µF	20%	25V
C049	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C050	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C053	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C054	1-137-528-11	MYLAR	0.1µF	10%	250V
C055	1-104-503-12	CERAMIC CHIP	0.1µF	10%	100V
C061	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C090	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C092	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C102	1-137-528-11	MYLAR	0.1µF	10%	250V
C104	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C105	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C106	1-137-528-11	MYLAR	0.1µF	10%	250V
C112	1-163-229-11	CERAMIC CHIP	12pF	5%	50V
C130	1-216-295-91	SHORT	0		
C151	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C202	1-137-528-11	MYLAR	0.1µF	10%	250V
C204	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C205	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C206	1-137-528-11	MYLAR	0.1µF	10%	250V
C212	1-163-229-11	CERAMIC CHIP	12pF	5%	50V
C230	1-216-295-91	SHORT	0		
C251	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C302	1-137-528-11	MYLAR	0.1µF	10%	250V
C304	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C305	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C306	1-137-528-11	MYLAR	0.1µF	10%	250V
C312	1-163-229-11	CERAMIC CHIP	12pF	5%	50V
C330	1-216-295-91	SHORT	0		
C351	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V

CONNECTOR

CN301	1-506-108-41	PIN, CONNECTOR (TERMINAL PIN)	
CN303	1-695-915-11	TAB (CONTACT)	
CN304	1-695-915-11	TAB (CONTACT)	
CN305	*1-564-512-11	PLUG, CONNECTOR	9P
CN306	*1-564-509-11	PLUG, CONNECTOR	6P
CN309	*1-564-511-11	PLUG, CONNECTOR	8P
CN310	*1-779-944-21	PIN, CONNECTOR (PC BOARD)	4P
CN311	*1-564-508-11	PLUG, CONNECTOR	5P
CN313	*1-785-705-11	PIN, CONNECTOR (PC BOARD)	9P

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Note:

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Note:

Les composants identifies per un trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

REF.NO.	PART NO.	DESCRIPTION	REMARK
		DIODE	
D001	8-719-970-02	DIODE 1SR139-400T31	
D002	8-719-911-19	DIODE 1SS119-25	
D003	8-719-911-19	DIODE 1SS119-25	
D004	8-719-911-19	DIODE 1SS119-25	
D005	8-719-911-19	DIODE 1SS119-25	
D007	8-719-109-89	DIODE RD5.6ESB2	
D008	8-719-109-89	DIODE RD5.6ESB2	
D014	8-719-911-19	DIODE 1SS119-25	
D015	8-719-911-19	DIODE 1SS119-25	
D104	8-719-970-83	DIODE HSS82	
D105	8-719-970-83	DIODE HSS82	
D106	8-719-970-83	DIODE HSS82	
D111	8-719-062-51	DIODE 1PS226-115	
D204	8-719-970-83	DIODE HSS82	
D205	8-719-970-83	DIODE HSS82	
D206	8-719-970-83	DIODE HSS82	
D211	8-719-062-51	DIODE 1PS226-115	
D304	8-719-970-83	DIODE HSS82	
D305	8-719-970-83	DIODE HSS82	
D306	8-719-970-83	DIODE HSS82	
D311	8-719-062-51	DIODE 1PS226-115	
		FERRITE BEAD	
FB001	1-412-911-11	FERRITE 0µH	
FB004	1-412-911-11	FERRITE 0µH	
FB005	1-412-911-11	FERRITE 0µH	
FB006	1-412-911-11	FERRITE 0µH	
FB009	1-412-911-11	FERRITE 0µH	
FB010	1-412-911-11	FERRITE 0µH	
FB011	1-412-911-11	FERRITE 0µH	
FB012	1-412-911-11	FERRITE 0µH	
FB102	1-216-295-91	SHORT 0	
FB202	1-216-295-91	SHORT 0	
FB302	1-216-295-91	SHORT 0	
		FILTER	
FL002	1-412-911-11	FERRITE 0µH	
		IC	
IC001	8-752-090-63	IC CXA2067S	
IC002	8-759-593-11	IC LM2415	
IC003	8-759-589-35	IC CXD9516P	
IC004	8-749-016-27	IC H8D2957	
IC005	8-759-100-96	IC UPC4558G2	
IC006	8-759-269-07	IC SN74HCT02ANSR	
		JACK	
J001⚠	1-251-598-11	SOCKET, CRT	
		CHIP CONDUCTOR	
JR002	1-216-296-91	SHORT 0	
JR005	1-216-296-91	SHORT 0	
JR006	1-216-296-91	SHORT 0	
JR007	1-216-296-91	SHORT 0	
JR016	1-216-296-91	SHORT 0	
JR017	1-216-296-91	SHORT 0	
JR018	1-216-295-91	SHORT 0	
JR019	1-216-296-91	SHORT 0	
JR020	1-216-296-91	SHORT 0	
JR021	1-216-296-91	SHORT 0	
		COIL	
L002	1-412-911-11	FERRITE 0µH	
L003	1-408-397-00	INDUCTOR 1µH	
L005	1-412-529-11	INDUCTOR 22µH	
L007	1-410-482-31	INDUCTOR 100µH	
L009	1-216-295-91	SHORT 0	
L010	1-412-911-11	FERRITE 0µH	
L101	1-414-137-31	INDUCTOR 0.22µH	
L102	1-412-052-21	INDUCTOR CHIP 1µH	
L103	1-414-137-31	INDUCTOR 0.22µH	
L201	1-414-137-31	INDUCTOR 0.22µH	
L203	1-414-137-31	INDUCTOR 0.22µH	
L301	1-414-137-31	INDUCTOR 0.22µH	
L303	1-414-137-31	INDUCTOR 0.22µH	
		TRANSISTOR	
Q001	8-729-046-80	TRANSISTOR 2SC4634LS-CB11	
Q006	8-729-120-28	TRANSISTOR 2SC1623-L5L6	

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Note:

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Note:

Les composants identifies per un trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

RESISTOR

REF.NO.	PART NO.	DESCRIPTION		REMARK	
R002	1-216-043-91	RES, CHIP	560	5%	1/10W
R003	1-216-071-00	RES, CHIP	8.2K	5%	1/10W
R004	1-216-055-00	RES,CHIP	1.8K	5%	1/10W
R005	1-216-109-00	RES,CHIP	330K	5%	1/10W
R006	1-216-025-91	RES,CHIP	100	5%	1/10W
R007	1-216-025-91	RES,CHIP	100	5%	1/10W
R009	1-216-073-00	RES,CHIP	10K	5%	1/10W
R011	1-216-073-00	RES,CHIP	10K	5%	1/10W
R012	1-216-073-00	RES,CHIP	10K	5%	1/10W
R013	1-216-025-91	RES,CHIP	100	5%	1/10W
R014	1-216-025-91	RES,CHIP	100	5%	1/10W
R017	1-216-025-91	RES,CHIP	100	5%	1/10W
R018	1-216-025-91	RES,CHIP	100	5%	1/10W
R020	1-216-025-91	RES,CHIP	100	5%	1/10W
R021	1-216-025-91	RES,CHIP	100	5%	1/10W
R022	1-216-033-00	RES,CHIP	220	5%	1/10W
R023	1-216-049-91	RES,CHIP	1K	5%	1/10W
R024	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R028	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R029	1-216-099-00	RES,CHIP	120K	5%	1/10W
R030	1-216-025-91	RES,CHIP	100	5%	1/10W
R031	1-216-049-91	RES,CHIP	1K	5%	1/10W
R035	1-216-295-91	SHORT	0		
R041	1-216-025-91	RES,CHIP	100	5%	1/10W
R045	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R046	1-216-097-91	RES,CHIP	100K	5%	1/10W
R047	1-216-073-00	RES,CHIP	10K	5%	1/10W
R048	1-219-398-51	METAL	2.2M	5%	1W
R049	1-216-697-91	METAL CHIP	82K	0.50%	1/10W
R051	1-216-049-91	RES,CHIP	1K	5%	1/10W
R052	1-216-073-00	RES,CHIP	10K	5%	1/10W
R053	1-219-621-91	METAL	22M	10%	1/4W
R062	1-216-295-91	SHORT	0		
R064	1-202-830-00	SOLID	10K	20%	1/2W
R102	1-216-113-00	RES,CHIP	470K	5%	1/10W
R104	1-216-009-91	RES,CHIP	22	5%	1/10W
R106	1-216-673-11	METAL CHIP	8.2K	0.50%	1/10W
R107	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R108	1-216-679-11	METAL CHIP	15K	0.50%	1/10W
R109	1-216-113-00	RES,CHIP	470K	5%	1/10W
R111	1-249-402-11	CARBON	56	5%	1/4W F
R117	1-216-019-00	RES,CHIP	56	5%	1/10W
R118	1-216-009-91	RES,CHIP	22	5%	1/10W
R119	1-216-113-00	RES,CHIP	470K	5%	1/10W
R130	1-216-022-00	RES,CHIP	75	5%	1/10W
R151	1-202-549-00	SOLID	100	20%	1/2W
R161	1-215-394-00	METAL	75	1%	1/4W
R202	1-216-113-00	RES,CHIP	470K	5%	1/10W
R204	1-216-009-91	RES,CHIP	22	5%	1/10W
R206	1-216-673-11	METAL CHIP	8.2K	0.50%	1/10W
R207	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R208	1-216-679-11	METAL CHIP	15K	0.50%	1/10W
R209	1-216-113-00	RES,CHIP	470K	5%	1/10W
R211	1-249-402-11	CARBON	56	5%	1/4W F
R217	1-216-019-00	RES,CHIP	56	5%	1/10W
R218	1-216-009-91	RES,CHIP	22	5%	1/10W
R219	1-216-113-00	RES,CHIP	470K	5%	1/10W
R230	1-216-022-00	RES,CHIP	75	5%	1/10W
R251	1-202-549-00	SOLID	100	20%	1/2W
R261	1-215-394-00	METAL	75	1%	1/4W
R302	1-216-113-00	RES,CHIP	470K	5%	1/10W
R304	1-216-009-91	RES,CHIP	22	5%	1/10W
R306	1-216-673-11	METAL CHIP	8.2K	0.50%	1/10W
R307	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R308	1-216-679-11	METAL CHIP	15K	0.50%	1/10W
R309	1-216-113-00	RES,CHIP	470K	5%	1/10W
R311	1-249-402-11	CARBON	56	5%	1/4W F
R317	1-216-019-00	RES,CHIP	56	5%	1/10W
R318	1-216-009-91	RES,CHIP	22	5%	1/10W
R319	1-216-113-00	RES,CHIP	470K	5%	1/10W
R330	1-216-022-00	RES,CHIP	75	5%	1/10W
R351	1-202-549-00	SOLID	100	20%	1/2W
R361	1-215-394-00	METAL	75	1%	1/4W

SPARK GAP

SG001	⚠1-519-422-11	GAP, SPARK
SG002	⚠1-517-499-21	GAP, SPARK
SG101	⚠1-517-499-21	GAP, SPARK
SG201	⚠1-517-499-21	GAP, SPARK
SG301	⚠1-517-499-21	GAP, SPARK

D

Note:

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Note:

Les composants identifies per un trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

REF.NO.	PART NO.	DESCRIPTION	REMARK

D

*** A-1346-891-A D BOARD, COMPLETE**

	1-533-223-11	CLIP, FUSE
	3-703-319-01	PURSE LOCK (DIA.15)
	4-071-071-01	HOLDER, LED
	4-382-854-01	SCREW (M3X8), P, SW (+)
	4-382-854-21	SCREW (M3X14), P, SW (+)

CAPACITOR

C401	1-128-528-11	ELECT	470µF	20%	25V
C402	1-117-667-31	FILM	0.47µF	5%	250V
C403	1-107-911-11	ELECT	220µF	20%	50V
C404	1-128-528-11	ELECT	470µF	20%	25V
C405	1-104-760-11	CERAMIC CHIP	0.047µF	10%	50V
C406	1-137-368-11	MYLAR	0.0047µF	5%	50V
C407	1-137-372-11	MYLAR	0.022µF	5%	50V
C410	1-164-005-11	CERAMIC CHIP	0.47µF		25V
C501	1-126-964-11	ELECT	10µF	20%	50V
C502	1-137-370-11	MYLAR	0.01µF	5%	50V
C503	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C504	1-102-030-00	CERAMIC	330pF	10%	500V
C505	1-109-878-11	CERAMIC	15pF	5%	2KV
C506	1-126-960-11	ELECT	1µF	20%	50V
C507	1-131-653-11	FILM	0.19µF	5%	400V
C508	1-128-526-11	ELECT	100µF	20%	25V
C509	1-162-117-00	CERAMIC	100pF	10%	500V
C510	1-102-228-00	CERAMIC	470pF	10%	500V
C511	1-117-663-11	FILM	0.22µF	5%	250V
C512	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C513	1-107-906-11	ELECT	10µF	20%	50V
C514	1-115-521-11	FILM	0.82µF	5%	250V
C515	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C516	1-119-862-11	FILM	0.3µF	5%	250V
C517	1-137-370-11	MYLAR	0.01µF	5%	50V
C518	1-117-954-11	FILM	4300pF	3%	1.8KV
C519	1-117-621-11	FILM	1200pF	3%	1.2KV
C520	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C521	1-107-444-11	CERAMIC	100pF	5%	2KV
C522	1-136-684-51	MYLAR	0.0022µF	10%	100V
C523	1-117-660-21	FILM	0.12µF	5%	250V
C524	1-110-641-51	ELECT	33µF	20%	200V
C525	1-136-060-00	FILM	0.047µF	5%	400V
C526	1-164-646-11	CERAMIC	2200pF	10%	500V
C527	1-117-879-91	MYLAR	0.01µF	10%	250V

REF.NO.	PART NO.	DESCRIPTION	REMARK		
C528	1-115-349-51	CERAMIC	0.01µF		2KV
C529	1-136-060-00	FILM	0.047µF	5%	400V
C530	1-117-660-21	FILM	0.12µF	5%	250V
C531	1-119-858-11	FILM	0.068µF	5%	250V
C532⚠	1-137-401-11	MYLAR	0.22µF	10%	100V
C534⚠	1-137-419-11	MYLAR	0.033µF	10%	100V
C535	1-130-495-00	MYLAR	0.1µF	5%	50V
C536	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C538	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C539⚠	1-137-150-11	MYLAR	0.01µF	10%	100V
C540⚠	1-136-203-11	FILM 10000pF	5%	630V	
C541	1-126-963-11	ELECT	4.7µF	20%	50V
C542⚠	1-126-964-11	ELECT	10µF	20%	50V
C543	1-163-251-11	CERAMIC CHIP	100pF	5%	50V
C544⚠	1-137-370-11	MYLAR	0.01µF	5%	50V
C545	1-163-037-11	CERAMIC CHIP	0.022µF	10%	50V
C546	1-163-259-91	CERAMIC CHIP	220pF	5%	50V
C547	1-107-902-11	ELECT	1µF	20%	50V
C548	1-130-471-00	MYLAR	0.001µF	5%	50V
C549	1-137-375-11	MYLAR	0.068µF	5%	50V
C550	1-126-933-11	ELECT	100µF	20%	16V
C551	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C552	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C553⚠	1-163-009-11	CERAMIC CHIP	0.001µF	10%	50V
C554⚠	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C555⚠	1-130-495-00	MYLAR	0.1µF	5%	50V
C556⚠	1-163-259-91	CERAMIC CHIP	220pF	5%	50V
C557	1-107-907-11	ELECT	22µF	20%	50V
C558⚠	1-126-960-11	ELECT	1µF	20%	50V
C559	1-137-368-11	MYLAR	0.0047µF	5%	50V
C560	1-119-859-71	FILM	0.36µF	5%	250V
C561⚠	1-163-009-11	CERAMIC CHIP	0.001µF	10%	50V
C562	1-128-526-11	ELECT	100µF	20%	16V
C563	1-163-005-11	CERAMIC CHIP	470pF	10%	50V
C564	1-107-823-11	CERAMIC CHIP	0.47µF	10%	16V
C566	1-128-551-11	ELECT	22µF	20%	25V
C568	1-136-060-00	FILM	0.047µF	5%	400V
C569	1-130-495-00	MYLAR	0.1µF	5%	50V
C570	1-128-526-11	ELECT	100µF	20%	25V
C572	1-107-651-11	ELECT	4.7µF	20%	250V
C573	1-107-651-11	ELECT	4.7µF	20%	250V
C574	1-117-879-91	MYLAR	0.01µF	10%	250V
C575	1-110-641-51	ELECT	33µF	20%	200V
C576	1-163-243-11	CERAMIC CHIP	47pF	5%	50V
C577	1-115-349-51	CERAMIC	0.01µF		2KV
C578	1-107-974-11	CERAMIC	47pF	5%	2KV
C579	1-109-879-11	CERAMIC	22pF	5%	2KV
C580	1-137-370-11	MYLAR	0.01µF	5%	50V
C582	1-163-037-11	CERAMIC CHIP	0.022µF	10%	50V

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REF.NO.	PART NO.	DESCRIPTION	REMARK		
C583	1-130-495-00	MYLAR	0.1µF	5%	50V
C601	1-104-664-11	ELECT	47µF	20%	10V
C602	1-162-117-00	CERAMIC	100pF	10%	500V
C603	1-126-942-61	ELECT	1000µF	20%	25V
C604 ⚠	1-104-708-11	MYLAR	0.47µF	20%	250V
C605 ⚠	1-104-708-11	MYLAR	0.47µF	20%	250V
C606	1-113-894-11	CERAMIC	100pF	10%	250V
C608	1-104-653-11	ELECT	220µF	20%	16V
C610	1-107-852-11	ELECT(BLOCK)	330µF	20%	400V
C611	1-163-007-11	CERAMIC CHIP	680pF	10%	50V
C612 ⚠	1-119-858-11	FILM	0.068µF	5%	250V
C613 ⚠	1-162-115-00	CERAMIC	330pF	10%	2KV
C614	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C615	1-163-037-11	CERAMIC CHIP	0.022µF	10%	50V
C616	1-107-907-11	ELECT	22µF	20%	25V
C617	1-107-907-11	ELECT	22µF	20%	25V
C618	1-130-495-00	MYLAR	0.1µF	5%	50V
C619	1-164-161-11	CERAMIC CHIP	0.0022µF	10%	50V
C620	1-162-117-00	CERAMIC	100pF	10%	500V
C621	1-104-712-11	ELECT	47µF	0	200V
C622	1-107-933-11	ELECT	100µF	20%	100V
C623	1-104-666-11	ELECT	220µF	20%	25V
C624	1-107-885-11	ELECT	3300µF	20%	16V
C625	1-126-768-11	ELECT	2200µF	20%	16V
C626	1-104-653-11	ELECT	220µF	20%	16V
C627	1-126-934-11	ELECT	220µF	20%	10V
C628	1-128-526-11	ELECT	100µF	20%	25V
C630	1-126-935-11	ELECT	470µF	20%	16V
C631	1-126-935-11	ELECT	470µF	20%	16V
C632	1-128-954-21	ELECT	1000µF	20%	25V
C633	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C634	1-163-017-00	CERAMIC CHIP	0.0047µF	10%	50V
C636	1-113-979-51	MYLAR	0.047µF	10%	1.5KV
C637	1-107-888-11	ELECT	47µF	20%	25V
C638	1-113-894-11	CERAMIC	100pF	10%	250V
C640	1-113-912-11	CERAMIC	0.0047µF	20%	250V
C641	1-126-933-11	ELECT	100µF	20%	16V
C643	1-113-912-11	CERAMIC	0.0047µF	20%	250V
C647	1-102-228-00	CERAMIC	470pF	10%	500V
C650	1-163-019-00	CERAMIC CHIP	0.0068µF	10%	50V
C660 ⚠	1-113-912-11	CERAMIC	0.0047µF	20%	250V
C661	1-117-699-11	CERAMIC	0.001µF	20%	250V
C701	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C702	1-126-963-11	ELECT	4.7µF	20%	50V
C703	1-136-169-00	MYLAR	0.22µF	5%	50V
C704	1-163-259-91	CERAMIC CHIP	220pF	5%	50V
C705	1-130-495-00	MYLAR	0.1µF	5%	50V
C706	1-163-113-00	CERAMIC CHIP	68pF	5%	50V
C707	1-163-113-00	CERAMIC CHIP	68pF	5%	50V
C708	1-130-495-00	MYLAR	0.1µF	5%	50V
C709	1-126-941-11	ELECT	470µF	20%	25V
C710	1-126-941-11	ELECT	470µF	20%	25V
C711	1-130-495-00	MYLAR	0.1µF	5%	50V
C712	1-130-495-00	MYLAR	0.1µF	5%	50V
C713	1-126-927-11	ELECT	2200µF	20%	10V
C714	1-163-131-00	CERAMIC CHIP	390pF	5%	50V
C715	1-126-935-11	ELECT	470µF	20%	16V
C716	1-163-989-11	CERAMIC CHIP	0.033µF	10%	25V
C718	1-163-989-11	CERAMIC CHIP	0.033µF	10%	25V
C723	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C725	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C729	1-163-003-11	CERAMIC CHIP	330pF	10%	50V
C733	1-163-003-11	CERAMIC CHIP	330pF	10%	50V
C901	1-107-823-11	CERAMIC CHIP	0.47µF	10%	16V
C902	1-126-935-11	ELECT	470µF	20%	16V
C903	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C905	1-137-375-11	MYLAR	0.068µF	5%	50V
C906	1-136-177-00	MYLAR	1µF	5%	50V
C908	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C909	1-126-926-11	ELECT	1000µF	20%	10V
C910	1-107-713-11	ELECT	4.7µF	20%	50V
C911	1-137-370-11	MYLAR	0.01µF	5%	50V
C912	1-126-933-11	ELECT	100µF	20%	16V
C913	1-130-495-00	MYLAR	0.1µF	5%	50V
C914	1-163-231-11	CERAMIC CHIP	15pF	5%	50V
C915	1-163-231-11	CERAMIC CHIP	15pF	5%	50V
C916	1-126-965-11	ELECT	22µF	20%	50V
C917	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C918	1-126-964-11	ELECT	10µF	20%	50V
C920	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C921	1-126-935-11	ELECT	470µF	20%	16V
C922	1-107-712-11	ELECT	3.3µF	20%	50V
C923	1-163-133-00	CERAMIC CHIP	470pF	5%	50V
C924	1-126-965-11	ELECT	22µF	20%	50V
C925	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C926	1-126-935-11	ELECT	470µF	20%	16V
C927	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C928	1-163-021-91	CERAMIC CHIP	0.01µF	10%	50V
C929	1-163-009-11	CERAMIC CHIP	0.001µF	10%	50V
C930	1-137-370-11	MYLAR	0.01µF	5%	50V
C931	1-163-133-00	CERAMIC CHIP	470pF	5%	50V
C935	1-107-823-11	CERAMIC CHIP	0.47µF	10%	16V
C936	1-163-251-11	CERAMIC CHIP	100pF	5%	50V
C937	1-107-823-11	CERAMIC CHIP	0.47µF	10%	16V
C938	1-126-934-11	ELECT	220µF	20%	16V

D

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REF.NO.	PART NO.	DESCRIPTION	REMARK
		CONNECTOR	
CN501*	1-580-798-11	CONNECTOR PIN (DY)	6P
CN502*	1-564-512-11	PLUG, CONNECTOR	9P
CN512	1-695-915-11	TAB (CONTACT)	
CN513	1-695-915-11	TAB (CONTACT)	
CN600 ⚠	1-251-644-11	INLET,AC (WITH NOISE FILTER)	3P
CN601	1-691-960-11	PIN, CONNECTOR (PWB)	3P
CN602*	1-506-371-00	PIN, CONNECTOR	2P
CN604	1-695-915-11	TAB (CONTACT)	
CN701*	1-564-513-11	PLUG, CONNECTOR	10P
CN901*	1-508-879-11	BASE POST	
CN902*	1-564-513-11	PLUG, CONNECTOR	10P
CN903*	1-564-511-11	PLUG, CONNECTOR	8P
		DIODE	
D401	8-719-052-90	DIODE D1NL40-TA2	
D402	8-719-921-40	DIODE MTZJ-4.7C	
D403	8-719-988-61	DIODE 1SS355TE-17	
D404	8-719-058-24	DIODE RB501V-40TE-17	
D501	8-719-110-31	DIODE RD12ESB2	
D502	8-719-981-00	DIODE ERC81-004	
D504	8-719-110-49	DIODE RD18ESB2	
D505	8-719-941-74	DIODE ERB91-02	
D506	8-719-075-18	DIODE FMQ-G2FS	
D507	8-719-109-85	DIODE RD5.1ESB2	
D509	8-719-110-17	DIODE RD10ESB2	
D510	8-719-018-82	DIODE RGP02-20EL-6394	
D511	8-719-109-89	DIODE RD5.6ESB2	
D512	8-719-911-19	DIODE 1SS119-25	
D513	8-719-052-90	DIODE D1NL40-TA2	
D514	8-719-970-83	DIODE HSS82	
D515 ⚠	8-719-018-82	DIODE RGP02-20EL-6394	
D516	8-719-052-86	DIODE D2L40-TA	
D517 ⚠	8-759-157-40	IC UPC574J	
D518	8-719-110-17	DIODE RD10ESB2	
D519	8-719-911-19	DIODE 1SS119-25	
D520	8-719-018-82	DIODE RGP02-20EL-6394	
D521	8-719-018-82	DIODE RGP02-20EL-6394	
D522	8-719-911-19	DIODE 1SS119-25	
D523	8-719-911-19	DIODE 1SS119-25	
D524	8-719-051-85	DIODE HSS83TD	
D525	8-719-051-85	DIODE HSS83TD	
D527	8-719-109-85	DIODE RD5.1ESB2	
D529	8-719-110-49	DIODE RD18ESB2	
D601 ⚠	8-719-510-53	DIODE D4SB60L	
D602 ⚠	8-719-911-19	DIODE 1SS119-25	
D603	8-719-911-19	DIODE 1SS119-25	
D604	8-719-911-19	DIODE 1SS119-25	
D605	8-719-110-31	DIODE RD12ESB2	
D606 ⚠	8-719-053-19	DIODE UF4007G23	
D607	8-719-053-19	DIODE UF4007G23	
D608	8-719-110-49	DIODE RD18ESB2	
D609 ⚠	8-719-911-19	DIODE 1SS119-25	
D610	8-719-921-40	DIODE MTZJ-4.7C	
D611	8-719-067-68	DIODE FMC-26UA	
D612	8-719-053-19	DIODE UF4007G23	
D613	8-719-076-20	DIODE BT149G-412-OT359	
D614	8-719-032-12	DIODE D1NS6	
D615	8-719-979-58	DIODE EGP10D	
D616	8-719-979-58	DIODE EGP10D	
D617	8-719-947-06	DIODE RGP10JPKG23	
D618	8-719-058-38	DIODE FMN-G12S	
D619	8-719-058-38	DIODE FMN-G12S	
D620	8-719-300-76	DIODE RH-1A	
D621	8-719-911-19	DIODE 1SS119-25	
D622	8-719-058-38	DIODE FMN-G12S	
D704	8-719-911-19	DIODE 1SS119-25	
D901	8-719-988-61	DIODE 1SS355TE-17	
D902	8-719-069-55	DIODE UDZS-TE17-5.6B	
D903	8-719-050-84	DIODE RB441Q-40T-77	
D904	8-719-069-55	DIODE UDZS-TE17-5.6B	
D905	8-719-911-19	DIODE 1SS119-25	
D906	8-719-988-61	DIODE 1SS355TE-17	
D907	8-719-988-61	DIODE 1SS355TE-17	
D908	8-719-988-61	DIODE 1SS355TE-17	
D909	8-719-069-55	DIODE UDZS-TE17-5.6B	
D910	8-719-069-55	DIODE UDZS-TE17-5.6B	
D911	8-719-988-61	DIODE 1SS355TE-17	
D912	8-719-076-92	DIODE SML16716CN	
D913	8-719-988-61	DIODE 1SS355TE-17	
D914	8-719-988-61	DIODE 1SS355TE-17	
D915	8-719-988-61	DIODE 1SS355TE-17	
D916	8-719-988-61	DIODE 1SS355TE-17	
D917	8-719-988-61	DIODE 1SS355TE-17	
D918	8-719-069-55	DIODE UDZS-TE17-5.6B	
D919	8-719-988-61	DIODE 1SS355TE-17	
D920	8-719-058-24	DIODE RB501V-40TE-17	
D921	8-719-988-61	DIODE 1SS355TE-17	
D924	8-719-988-61	DIODE 1SS355TE-17	
D925	8-719-988-61	DIODE 1SS355TE-17	
D926	8-719-988-61	DIODE 1SS355TE-17	
D927	8-719-988-61	DIODE 1SS355TE-17	
D928	8-719-069-55	DIODE UDZS-TE17-5.6B	
D929	8-719-069-55	DIODE UDZS-TE17-5.6B	
D930	8-719-069-55	DIODE UDZS-TE17-5.6B	
D931	8-719-109-89	DIODE RD5.6ESB2	
D932	8-719-109-89	DIODE RD5.6ESB2	

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REF.NO.	PART NO.	DESCRIPTION	REMARK
D933	8-719-109-89	DIODE RD5.6ESB2	
D934	8-719-069-55	DIODE UDZS-TE17-5.6B	
D935	8-719-109-85	DIODE RD5.1ESB2	
D936	8-719-109-89	DIODE RD5.6ESB2	
D937	8-719-109-89	DIODE RD5.6ESB2	

FUSE

F601 ⚠	1-576-231-11	FUSE (H.B.C.) 4A/250V	

FERRITE BEAD

FB502	1-410-396-41	FERRITE	0.45µH
FB504	1-412-911-11	FERRITE	0µH
FB506	1-412-911-11	FERRITE	0µH
FB601	1-412-911-11	FERRITE	0µH
FB904	1-543-961-22	FERRITE	0µH

IC

IC401	8-759-339-59	IC TDA8177	
IC501 ⚠	8-759-570-29	IC UPC6757CS	
IC502	8-759-803-42	IC LA6500-FA	
IC503	8-759-803-42	IC LA6500-FA	
IC601 ⚠	8-759-594-75	IC TEA1504/N2	
IC602	8-759-592-79	IC BA00AST-V5	
IC603 ⚠	8-749-016-35	IC TLP621D4-Y-LF2T	
IC604	8-759-586-17	IC TL1431CZ-AP	
IC605	8-759-637-83	IC PQ12RD8S	
IC607 ⚠	8-759-450-47	IC BA05T	
IC608	8-759-231-53	IC TA7805S	
IC701	8-759-595-52	IC CXA8070AP	
IC702	8-749-015-00	IC STK391-110	
IC703	8-759-822-38	IC LA6510	
IC901 ⚠	8-759-640-86	IC CXD9529S-LHX	
IC902	8-759-594-40	IC CXA8071CP	
IC904	8-759-352-91	IC PST9143NL	
IC905	8-759-527-76	IC M24C08-MN6T	

CHIP CONDUCTOR

JR001	1-216-296-91	SHORT	0
JR003	1-216-295-91	SHORT	0
JR004	1-216-295-91	SHORT	0
JR006	1-216-295-91	SHORT	0
JR007	1-216-295-91	SHORT	0

REF.NO.	PART NO.	DESCRIPTION	REMARK
JR008	1-216-296-91	SHORT	0
JR009	1-216-295-91	SHORT	0
JR010	1-216-296-91	SHORT	0
JR011	1-216-296-91	SHORT	0
JR012	1-216-295-91	SHORT	0
JR013	1-216-295-91	SHORT	0
JR014	1-216-296-91	SHORT	0
JR015	1-216-295-91	SHORT	0
JR016	1-216-295-91	SHORT	0
JR017	1-216-295-91	SHORT	0
JR018	1-216-295-91	SHORT	0
JR019	1-216-296-91	SHORT	0
JR020	1-216-296-91	SHORT	0
JR021	1-216-296-91	SHORT	0
JR022	1-216-295-91	SHORT	0
JR023	1-216-295-91	SHORT	0
JR024	1-216-296-91	SHORT	0
JR025	1-216-296-91	SHORT	0
JR027	1-216-296-91	SHORT	0
JR028	1-216-296-91	SHORT	0
JR029	1-216-295-91	SHORT	0
JR030	1-216-295-91	SHORT	0
JR032	1-216-296-91	SHORT	0
JR033	1-216-296-91	SHORT	0
JR034	1-216-295-91	SHORT	0
JR038	1-216-296-91	SHORT	0
JR604	1-216-295-91	SHORT	0
JR606	1-216-295-91	SHORT	0

COIL

L501	1-406-663-21	INDUCTOR	47µH
L502	1-406-663-21	INDUCTOR	47µH
L503	1-411-594-41	INDUCTOR	5mH
L505	1-412-552-11	INDUCTOR	2.2mH
L506	1-412-548-31	INDUCTOR	820µH
L507	1-414-856-11	INDUCTOR	10µH
L508	1-419-198-21	COIL, HORIZONTAL LINEARITY	
L509	1-419-198-21	COIL, HORIZONTAL LINEARITY	
L510	1-416-367-11	COIL, HORIZONTAL CENTER	
L511	1-414-187-11	INDUCTOR	47µH
L513	1-414-856-11	INDUCTOR	10µH
L602	1-412-529-11	INDUCTOR	22µH
L603	1-412-537-31	INDUCTOR	100µH
L604	1-406-665-11	INDUCTOR	100µH
L606	1-406-665-11	INDUCTOR	100µH

D

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REF.NO.	PART NO.	DESCRIPTION	REMARK
		FILTER	
LF602	⚠1-429-180-11	TRANSFORMER, LINE FILTER	
		TRANSISTOR	
Q501	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q502	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q503	8-729-035-54	TRANSISTOR 2SJ449	
Q504	8-729-031-89	TRANSISTOR 2SC3941A-Q(TA)	
Q505	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q506	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q507	8-729-049-17	TRANSISTOR 2SC5302-SONY-CC	
Q508	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q510	8-729-046-60	TRANSISTOR 2SK2605LBSONY	
Q511	8-729-042-34	TRANSISTOR IRFU110A	
Q512	8-729-047-72	TRANSISTOR 2SK3155-01	
Q513	8-729-043-41	TRANSISTOR 2SK2098-01MR-F119	
Q514	8-729-047-72	TRANSISTOR 2SK3155-01	
Q515	8-729-047-72	TRANSISTOR 2SK3155-01	
Q516	8-729-047-72	TRANSISTOR 2SK3155-01	
Q518	8-729-140-50	TRANSISTOR 2SC3209LK	
Q519	8-729-029-68	TRANSISTOR DTC114TSA	
Q520	8-729-035-54	TRANSISTOR 2SJ449	
Q521	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q522	8-729-027-23	TRANSISTOR DTA114EKA-T146	
Q524	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q525	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q601	8-729-029-92	TRANSISTOR DTC143ESA	
Q602	⚠8-729-048-61	TRANSISTOR 2SK2843LBS2SONY	
Q603	8-729-900-53	TRANSISTOR DTC114EK	
Q604	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q605	8-729-900-53	TRANSISTOR DTC114EK	
Q903	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
		RESISTOR	
R401	1-249-381-11	CARBON 1 5% 1/4W F	
R402	1-215-866-11	METAL OXIDE 330 5% 1W F	
R403	1-214-661-21	METAL 1.5 1% 1/4W	
R404	1-216-669-11	METAL CHIP 5.6K 0.50% 1/10W	
R405	1-214-661-21	METAL 1.5 1% 1/4W	
R406	1-216-677-11	METAL CHIP 12K 0.50% 1/10W	
R407	1-216-057-00	RES,CHIP 2.2K 5% 1/10W	
R408	1-216-073-00	RES,CHIP 10K 5% 1/10W	
R409	1-216-669-11	METAL CHIP 5.6K 0.50% 1/10W	
R410	1-216-677-11	METAL CHIP 12K 0.50% 1/10W	

REF.NO.	PART NO.	DESCRIPTION			REMARK
R500	1-249-377-11	CARBON	0.47	5%	1/4W F
R501	1-216-025-91	RES,CHIP	100	5%	1/10W
R502	1-218-758-11	METAL CHIP	180K	0.50%	1/10W
R503	1-216-675-91	METAL CHIP	10K	0.50%	1/10W
R504	1-249-377-11	CARBON	0.47	5%	1/4W F
R505	1-216-073-00	RES,CHIP	10K	5%	1/10W
R506	1-215-481-00	METAL	330K	1%	1/4W
R507	1-215-431-00	METAL	2.7K	1%	1/4W
R508	1-247-807-31	CARBON	100	5%	1/4W
R509	1-247-863-91	CARBON	22K	5%	1/4W
R510	⚠1-215-437-00	METAL	4.7K	1%	1/4W
R511	1-249-381-11	CARBON	1	5%	1/4W F
R512	1-249-389-11	CARBON	4.7	5%	1/4W
R513	1-215-888-00	METAL OXIDE	220	5%	2W F
R514	1-216-081-00	RES,CHIP	22K	5%	1/10W
R515	1-249-417-11	CARBON	1K	5%	1/4W F
R516	1-214-844-81	METAL	150	1%	1/2W
R517	1-216-393-00	METAL OXIDE	2.2	5%	3W F
R518	1-216-393-00	METAL OXIDE	2.2	5%	3W F
R519	1-215-463-00	METAL	56K	1%	1/4W
R520	1-249-397-11	CARBON	22	5%	1/4W F
R521	1-249-417-11	CARBON	1K	5%	1/4W F
R522	1-249-401-11	CARBON	47	5%	1/4W
R523	1-215-463-00	METAL	56K	1%	1/4W
R524	1-215-463-00	METAL	56K	1%	1/4W
R525	1-249-417-11	CARBON	1K	5%	1/4W F
R527	1-249-429-11	CARBON	10K	5%	1/4W
R528	1-216-081-00	RES,CHIP	22K	5%	1/10W
R529	1-249-429-11	CARBON	10K	5%	1/4W F
R530	1-216-474-11	METAL OXIDE	82	5%	3W F
R531	1-216-474-11	METAL OXIDE	82	5%	3W F
R532	1-249-385-11	CARBON	2.2	5%	1/4W F
R533	1-249-417-11	CARBON	1K	5%	1/4W F
R534	1-249-405-11	CARBON	100	5%	1/4W F
R535	1-215-463-00	METAL	56K	1%	1/4W
R536	1-249-417-11	CARBON	1K	5%	1/4W F
R537	1-215-463-00	METAL	56K	1%	1/4W
R538	1-215-905-11	METAL OXIDE	10	5%	3W F
R539	1-215-905-11	METAL OXIDE	10	5%	3W F
R540	⚠1-215-476-00	METAL	200K	1%	1/4W
R541	⚠1-215-421-00	METAL	1K	1%	1/4W
R542	⚠1-215-421-00	METAL	1K	1%	1/4W
R543	⚠1-249-389-11	CARBON	4.7	5%	1/4W F
R544	⚠1-247-903-00	CARBON	1M	5%	1/4W
R545	1-216-691-11	METAL CHIP	47K	0.50%	1/10W
R546	1-215-457-00	METAL	33K	1%	1/4W
R547	⚠1-215-477-00	METAL	220K	1%	1/4W
R548	1-215-423-00	METAL	1.2K	1%	1/4W
R549	⚠1-215-464-00	METAL	62K	1%	1/4W

Note:

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Note:

Les composants identifies per un trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

REF.NO.	PART NO.	DESCRIPTION		REMARK	
R550	1-215-423-00	METAL	1.2K	1%	1/4W
R551	1-216-687-11	METAL CHIP	33K	0.50%	1/10W
R552 ⚠	1-215-463-00	METAL	56K	1%	1/4W
R553	1-216-698-11	METAL CHIP	91K	0.50%	1/10W
R554	1-218-756-11	METAL CHIP	150K	0.50%	1/10W
R556	1-216-691-11	METAL CHIP	47K	0.50%	1/10W
R557	1-216-079-00	RES,CHIP	18K	5%	1/10W
R558	1-216-671-11	METAL CHIP	6.8K	0.50%	1/10W
R559	1-216-661-11	METAL CHIP	2.7K	0.50%	1/10W
R560	1-216-679-11	METAL CHIP	15K	0.50%	1/10W
R561	1-216-474-11	METAL OXIDE	82	5%	3W F
R562	1-215-451-00	METAL	18K	1%	1/4W
R563	1-249-383-11	CARBON	1.5	5%	1/4W F
R564 ⚠	1-216-089-91	RES,CHIP	47K	5%	1/10W
R565	1-215-481-00	METAL	330K	1%	1/4W
R566	1-215-859-00	METAL OXIDE	22	5%	1W F
R567 ⚠	1-216-073-00	RES,CHIP	10K	5%	1/10W
R568 ⚠	1-249-437-11	CARBON	47K	5%	1/4W
R569	1-216-643-11	METAL CHIP	470	0.50%	1/10W
R570	1-249-417-11	CARBON	1K	5%	1/4W
R571	1-215-926-00	METAL OXIDE	33K	5%	3W F
R572	1-249-437-11	CARBON	47K	5%	1/4W
R573	1-247-887-00	CARBON	220K	5%	1/4W
R574	1-249-421-11	CARBON	2.2K	5%	1/4W
R575	1-260-314-11	CARBON	68	5%	1/2W
R576	1-249-437-11	CARBON	47K	5%	1/4W
R577	1-215-908-00	METAL OXIDE	33	5%	3W F
R578	1-216-448-11	METAL OXIDE	39	5%	2W F
R579	1-247-883-00	CARBON	150K	5%	1/4W
R580	1-216-077-91	RES,CHIP	15K	5%	1/10W
R581	1-249-429-11	CARBON	10K	5%	1/4W
R582	1-249-402-11	CARBON	56	5%	1/4W F
R583	1-216-073-00	RES,CHIP	10K	5%	1/10W
R584	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R585	1-249-417-11	CARBON	1K	5%	1/4W
R586	1-249-421-11	CARBON	2.2K	5%	1/4W
R587	1-249-417-11	CARBON	1K	5%	1/4W
R589	1-249-425-11	CARBON	4.7K	5%	1/4W
R590	1-215-453-00	METAL	22K	1%	1/4W
R591	1-214-844-81	METAL	150	1%	1/2W
R592	1-214-844-81	METAL	150	1%	1/2W
R594	1-216-033-00	RES,CHIP	220	5%	1/10W
R595 ⚠	1-215-477-00	METAL	220K	1%	1/4W
R596	1-215-423-00	METAL	1.2K	1%	1/4W
R597	1-259-880-11	CARBON	2.2M	5%	1/4W
R599	1-249-417-11	CARBON	1K	5%	1/4W
R600	1-205-998-11	CEMENTED	1	5%	10W
R602	1-219-513-11	CARBON	4.7M	5%	1/2W
R603	1-249-403-11	CARBON	68	5%	1/4W
R604 ⚠	1-220-827-91	REGISTER	560K	5%	1/2W
R605	1-211-761-71	RES, FUSIBLE	0.1	10%	1/2W
R606	1-218-768-11	METAL CHIP	470K	0.50%	1/10W
R607	1-216-081-00	RES,CHIP	22K	5%	1/10W
R608	1-215-473-00	METAL	150K	1%	1/4W
R609	1-216-665-11	METAL CHIP	3.9K	0.50%	1/10W
R610	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R611	1-216-009-91	RES,CHIP	22	5%	1/10W
R612	1-247-791-91	CARBON	22	5%	1/4W
R613 ⚠	1-219-513-11	CARBON	4.7M	5%	1/2W
R614	1-216-345-11	METAL OXIDE	0.47	5%	1W F
R615	1-216-117-00	RES,CHIP	680K	5%	1/10W
R616	1-216-121-91	RES,CHIP	1M	5%	1/10W
R617	1-216-025-91	RES,CHIP	100	5%	1/10W
R618	1-216-635-11	METAL CHIP	220	0.50%	1/10W
R619	1-215-893-11	METAL OXIDE	1.5K	5%	2W F
R620	1-216-687-11	METAL CHIP	33K	0.50%	1/10W
R621	1-216-098-00	RES,CHIP	110K	5%	1/10W
R622	1-247-791-91	CARBON	22	5%	1/4W
R623	1-216-615-91	METAL CHIP	33	0.50%	1/10W
R624	1-216-611-11	METAL CHIP	22	0.50%	1/10W
R625	1-260-332-51	CARBON	2.2K	5%	1/2W
R626	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R627	1-249-377-11	CARBON	0.47	5%	1/4W F
R628	1-216-674-11	METAL CHIP	9.1K	0.50%	1/10W
R629	1-216-107-00	RES,CHIP	270K	5%	1/10W
R630 ⚠	1-211-874-71	RES, FUSIBLE	0.12	10%	1/2W
R631 ⚠	1-211-874-71	RES, FUSIBLE	0.12	10%	1/2W
R633	1-249-429-11	CARBON	10K	5%	1/4W
R634 ⚠	1-211-874-71	RES, FUSIBLE	0.12	10%	1/2W
R635	1-215-925-11	METAL OXIDE	22K	5%	3W F
R636	1-260-119-11	CARBON	47K	5%	1/2W
R637	1-215-902-11	METAL OXIDE	47K	5%	2WF
R638 ⚠	1-211-874-71	RES, FUSIBLE	0.12	10%	1/2W
R639 ⚠	1-211-874-71	RES, FUSIBLE	0.12	10%	1/2W
R640	1-249-381-11	CARBON	1	5%	1/4W F
R642	1-216-641-11	METAL CHIP	390	0.50%	1/10W
R643	1-215-467-00	METAL	82K	1%	1/4W
R645	1-216-675-91	METAL CHIP	10K	0.50%	1/10W
R646	1-216-689-11	RES,CHIP	39K	5%	1/10W
R647	1-216-073-00	RES,CHIP	10K	5%	1/10W
R648	1-216-669-11	METAL CHIP	5.6K	0.50%	1/10W
R649	1-216-663-11	METAL CHIP	3.3K	0.50%	1/10W
R650	1-215-471-00	METAL	120K	1%	1/4W
R654	1-216-344-00	METAL OXIDE	0.39	5%	1W F
R655	1-247-807-31	CARBON	100	5%	1/4W
R656	1-215-893-11	METAL OXIDE	1.5K	5%	2W F
R660	1-260-119-11	CARBON	47K	5%	1/2W
R661	1-215-902-11	METAL OXIDE	47K	5%	2W F

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Note:

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Note:

The components identified by ⋈ in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding x-ray radiation. Should replacement be required, replace only with the value originally used.

REF.NO.	PART NO.	DESCRIPTION	REMARK		
R663	1-216-663-11	METAL CHIP	3.3K	0.50%	1/10W
R665	1-216-663-11	METAL CHIP	3.3K	0.50%	1/10W
R669	1-216-107-00	RES,CHIP	270K	5%	1/10W
R671	1-216-107-00	RES,CHIP	270K	5%	1/10W
R703	1-249-410-11	CARBON	270	5%	1/4W
R704	1-216-673-11	METAL CHIP	8.2K	0.50%	1/10W
R705	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W
R706	1-216-667-11	METAL CHIP	4.7K	0.50%	1 /10W
R707	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W
R708	1-216-659-11	METAL CHIP	2.2K	0.50%	1 /10W
R709	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W
R710	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W
R711	1-216-346-00	METAL OXIDE	0.56	5%	1W F
R712	1-215-860-11	METAL OXIDE	33	5%	1W F
R713	1-216-347-11	METAL OXIDE	0.68	5%	1W F
R716	1-215-860-11	METAL OXIDE	33	5%	1W F
R717	1-216-353-00	METAL OXIDE	2.2	5%	1W F
R718	1-215-863-11	METAL OXIDE	100	5%	1W F
R719	1-216-679-11	METAL CHIP	15K	0.50%	1/10W
R724	1-216-422-11	METAL OXIDE	18	5%	1W F
R727	1-216-679-11	METAL CHIP	15K	0.50%	1/10W
R728	1-215-863-11	METAL OXIDE	100	5%	1W F
R729	1-216-353-00	METAL OXIDE	2.2	5%	1W F
R730	1-216-421-11	METAL OXIDE	12	5%	1W F
R731	1-216-295-91	SHORT	0		
R733	1-216-295-91	SHORT	0		
R735	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W
R737	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W
R739	1-216-073-00	RES,CHIP	10K	5%	1/10W
R741	1-249-377-11	CARBON	0.47	5%	1/4W F
R743	1-249-377-11	CARBON	0.47	5%	1/4W F
R745	1-216-298-00	RES,CHIP	2.2	5%	1/10W
R747	1-216-298-00	RES,CHIP	2.2	5%	1/10W
R753	1-216-679-11	METAL CHIP	15K	0.50%	1/10W
R755	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W
R903	1-216-049-91	RES,CHIP	1K	5%	1/10W
R904	1-216-049-91	RES,CHIP	1K	5%	1/10W
R905	1-216-295-91	SHORT	0		
R906	1-216-073-00	RES,CHIP	10K	5%	1/10W
R907	1-260-087-81	CARBON	100	5%	1/2W
R908	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R909	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R910	1-249-411-11	CARBON	330	5%	1/4W
R911	1-249-416-11	CARBON	820	5%	1/4W
R912	1-216-049-91	RES,CHIP	1K	5%	1/10W
R913	1-216-025-91	RES,CHIP	100	5%	1/10W
R914	1-216-025-91	RES,CHIP	100	5%	1/10W
R915	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R916	1-216-077-91	RES,CHIP	15K	5%	1/10W
R917	1-216-077-91	RES,CHIP	15K	5%	1/10W
R918	1-216-049-91	RES,CHIP	1K	5%	1/10W
R920	1-216-049-91	RES,CHIP	1K	5%	1/10W
R921	1-216-295-91	SHORT	0		
R922	1-216-073-00	RES,CHIP	10K	5%	1/10W
R923	1-216-295-91	SHORT	0		
R924	1-216-025-91	RES,CHIP	100	5%	1/10W
R925	1-216-113-00	RES,CHIP	470K	5%	1/10W
R927	1-216-295-91	SHORT	0		
R929	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R931	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W
R932	1-216-077-91	RES,CHIP	15K	5%	1/10W
R933	1-249-417-11	CARBON	1K	5%	1/4W
R934	1-249-429-11	CARBON	10K	5%	1/4W
R935	1-216-025-91	RES,CHIP	100	5%	1/10W
R936	1-216-025-91	RES,CHIP	100	5%	1/10W
R937	1-216-025-91	RES,CHIP	100	5%	1/10W
R938	1-216-025-91	RES,CHIP	100	5%	1/10W
R940	1-216-661-11	METAL CHIP	2.7K	0.50%	1/10W
R943	1-249-413-11	CARBON	470	5%	1/4W
R944	1-216-043-91	RES,CHIP	560	5%	1/10W
R945	1-216-049-91	RES,CHIP	1K	5%	1/10W
R946	1-216-053-00	RES,CHIP	1.5K	5%	1/10W
R947	1-216-061-00	RES,CHIP	3.3K	5%	1/10W
R950	1-216-051-00	RES,CHIP	1.2K	5%	1/10W
R951	1-216-025-91	RES,CHIP	100	5%	1/10W
R957	1-216-017-91	RES,CHIP	47	5%	1/10W
R958	1-216-017-91	RES,CHIP	47	5%	1/10W

VARIABLE RESISTOR

⋈	RV501	⚠1-241-767-21	RES, ADJ, CERMET 100K
		3-710-578-01	COVER, VOLUME, 6 MOLD (for RV501)

RELAY

	RY500	1-755-137-11	RELAY
	RY601	⚠1-755-067-21	RELAY

SWITCH

	S602	⚠1-771-757-11	SWITCH, PUSH (1 KEY)
	S901	1-692-431-21	SWITCH, TACTILE
	S903	1-692-431-21	SWITCH, TACTILE
	S904	1-692-431-21	SWITCH, TACTILE
	S905	1-692-431-21	SWITCH, TACTILE

Note:

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Note:

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REF.NO.	PART NO.	DESCRIPTION	REMARK
S906	1-692-431-21	SWITCH, TACTILE	
S908	1-692-431-21	SWITCH, TACTILE	
		SPARK GAP	
SG501	1-519-422-11	GAP, SPARK	
		TRANSFORMER	
T501 ⚠	1-453-311-11	FLYBACK ASSY NX-4404//X4L4	
T503	1-433-979-11	TRANSFORMER, FERRITE (DFT)	
T504	1-433-978-11	TRANSFORMER, HORIZONTAL DRIVE	
T505	1-431-413-11	TRANSFORMER, FERRITE (HST)	
T601 ⚠	1-433-847-14	TRANSFORMER, CONVERTER (SRT)	
		THERMISTOR	
TH501	1-807-796-11	THERMISTOR	
TH600 ⚠	1-809-827-11	THERMISTOR, NTC	
TH601	1-803-540-11	THERMISTOR	
		VARISTOR	
VA601 ⚠	1-801-073-31	VARISTOR TNR14V471K660	
		CRYSTAL	
X901	1-767-641-11	VIBRATOR, CRYSTAL	
X902	1-767-933-11	OSCILLATOR, CERAMIC	

REF.NO.	PART NO.	DESCRIPTION	REMARK

English
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